MONICA NICOLESCU

Professor
Department of Computer Science and Engineering, University of Nevada, Reno
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EDUCATION

Ph.D. in Computer Science, 2003

> University of Southern California
> Thesis: "An Action-Embedded Framework for Robot Learning from Demonstration"
> Dissertation Advisor: Prof. Maja J Matarić

M.S. in Computer Science, 1999

> University of Southern California

M.S. in Computer Science, 1996

> Polytechnic University Bucharest (Romania)
> Thesis : "Fuzzy Control"
> Advisor: Prof. Dumitru Popescu

B.S. in Computer Science, 1995

> Polytechnic University Bucharest (Romania)
> Thesis: "Modeling Identification and Compensation for Friction in Mechanical Drives", at the
> National Polytechnic Institute of Grenoble (INPG), FRANCE
> Advisor: Prof. Dorin Carstoiu

PROFESSIONAL

July 2015 - Present: University of Nevada, Reno

> ***Professor*****:** Performing teaching and research activities in the areas of autonomous mobile robotics,
> artificial intelligence, machine learning and human-robot interaction.

July 2009 – June 2015: University of Nevada, Reno

> ***Associate Professor*****:** Performing teaching and research activities in the areas of autonomous
> mobile robotics, artificial intelligence, machine learning and human-robot interaction.

July 2003 – June 2009: University of Nevada, Reno

> ***Assistant Professor*****:** Performing teaching and research activities in the areas of autonomous mobile
> robotics, artificial intelligence, machine learning and human-robot interaction.

June 1998 - May 2003: University of Southern California, Robotics Laboratory

> ***Research Assistant***: Performed research in autonomous mobile robotics, artificial intelligence,
> machine learning and human-robot interaction.

February 1996 - May 1998: Omnis Group Ltd. (Bucharest, Romania)

Software Engineer: Development of intelligent software systems for business management.

October 1995 - February 1996: Research Institute for Informatics, (Bucharest, Romania)

Research Assistant: Performed research on expert systems for medical applications.

TEACHING

Fall 2003 – Present: University of Nevada, Reno

- CS 135 – Introduction to Computer Science
- CPE 201 - Introduction to Computer Engineering
- CS 477/677 (formerly CS 465/665) - Analysis of Algorithms
- CS 491(X)/691(X) - Topics: Introduction to Robotics
- CS 493(X)/790(X) - Advanced Topics in Robotics
- CPE 470/670 Autonomous Mobile Robots (previously CS 491(X)/691(X))

Spring 1994 Polytechnic University Bucharest (Romania)

- Enrolled in a pedagogy class, performed teaching training, and received a Diploma in Pedagogy.

ACADEMIC ADVISING

Research Assistant Professor

- Richard Kelley, *Intent Recognition in Human-Robot Interaction* (2013-2014), co-advised with Mircea Nicolescu.

PhD Dissertation Committee Chair (students who graduated)

- Seyed Pourya Hoseini Alinodehi, *A Single-Shot Next Best View Approach Accompanied by a Dual-View Active Vision for Object Recognition Tasks,* (co-advised with Mircea Nicolescu), defended 08/2020.
- Banafsheh Rekabdar, *Classification and Early Recognition of Spatio-Temporal Patterns using Spike-Timing Neural Networks*, defended 05/03/2017.
- Richard Kelley, *Models of Intention for Human-Robot Interaction*, defended 05/14/2013.
- Bradford Towle, *Using an Auction Behavior-Based Robotic Architecture in Order to Fulfill Necessary Functionality for Service Robotics*, defended 05/09/2013.
- Christopher King, *Efficient Object Detection and Tracking Using a Novel MSER-Based Approach*, defended 11/21/2013, co-advised with Mircea Nicolescu.

Master of Science Thesis Committee Chair (students who graduated)

- Song Jiang, *Object Detection and Collaboration in Heterogeneous Multi-Robot Systems*, defended April, 2022.

- Andrew Palmer, *Person Profiles and Sensor Calibration for Intent Recognition in Socially Aware Navigation*, defended April 2020.

- Tawfiq Chowdhury, *Computation of Suitable Grasp Pose for Usage of Objects Based on Predefined Training and Real Time Pose Estimation*, defended April 2020.

- Timothy Sweet, *Alignment of LiDAR and Long-Wave Infrared Sensors to a GPS/INS by Non-Experts*, graduated December 2018.

- Luke Fraser, *A Hierarchical Control Architecture for Robust and Adaptive Robot Control,* graduated May 2016.

- Adeline Duong, *A New Way to Interact with Robots,* graduated May 2016.

- Banafsheh Rekabdar, *An Unsupervised Spike Timing Method for Learning Spatio-temporal Patterns*, co-advised with Mircea Nicolescu, graduated May 2015.

- Liesl Wigand, *Deep Convolutional Neural Networks for Multilabel Prediction Using RGBD Data*, graduated 05/06/2014.

- Katie Browne, *Learning to Generalize from Demonstration,* graduated 05/05/2013.

- Daniel Bigelow, *Intent Recognition in Multi-Agent Domains*, graduated 05/04/2013.

- Marek Hajek, *System Architecture for Weather, Road Condition, and Vehicle Data Telemetry via Low Bandwidth Radio Network*, graduated 4/24/2012.

- Richard Kelley, *Mind Reading for Social Robots: Stochastic Models of Intent Recognition*, graduated 04/23/2009.

- Jayashree Konda, Identification of Protein Coding Regions in Microbial Genomes Using Unsupervised Clustering, graduated 10/28/2009.

- Austin Stanhope, *A Control Architecture for Dynamic Execution of Robot Tasks Trained in Real-Time Using Particle Filters*, graduated 11/30/2009.

- Asya Nikitina, *Design and Implementation of Pattern Recognition Algorithms for the Detection of Chemicals with a Microcantilever Sensor Array*, graduated 11/07/2007.

- Adam Olenderski, *Aspects of Behavior Design for Learning by Demonstration*, graduated 08/08/2007.

- Xavier Palathingal, *A Framework for Long-Term Human-Robot Interaction*, graduated 04/18/2007.

- Pablo Rivera, *Development of an Autonomous Rover for the Nevada Student Satellite Program*, graduated 08/08/2007.

- Bradford Towle, *Combining Role Playing Game Constructs Toward Real Time Strategy Games*, graduated 11/28/2007.

- Christopher King, *Vision and Laser-Based Perception for Real-Time Autonomous Robotic Applications*, graduated 12/03/2007 (co-chair with Mircea Nicolescu).

- Christian Rayburn, *Field Demonstrated Autonomous Robot Control for CanSat Rocket Payload Retrieval,* graduated Fall 2005.

Master of Science Committee Chair – Non Thesis (students who graduated)

- Huayu Zhou, graduated May 2016.

PhD Dissertation Committee Member (students who graduated)

- Habib Ahmed, *Surface and Sub-Surface Analyses for Bridge Inspection,* defended, August 29, 2022, advisor Jim La.

- Bashira Akter Anima, *Distributed Dynamic Hierarchical Task Assignment for Human-Robot Team, ,* defended Dec. 5, 2022, advisor David Feil-Seifer.

- Frank Mascarich, defended July 1, 2021, advisor Kostas Bekris.

- Rahul Dubey, *Evolutionary Distributed Control Of Heterogeneous Agents In Dynamic Environments*, defended June 22, 2021, advisor Sushil Louis.

- Tung Dang, *Exploring the Unknown: Resilient Large-scale Informative Path Planning for Autonomous Robotic Exploration,* advisor Alexis Kostas, defended August 11, 2020.

- Ahmed Alhussen, *Fast and Secure Integrity Verification For High-Speed Data Transfers*, advisor Engin Arslan, defended June 1, 2020.

- Amar Patra, *Self-Reconfigurable Unmanned Aerial Vehicle Networks for Wireless Communication Provisioning*, advisor Shamik Sengupta, defended April 16, 2020.

- Raj Shukla, *Optimization and Anomaly Detection for Smart City-based Applications*, advisor Shamik Sengupta, defended March 26, 2020.

- Santosh Balajee Banisetty, *Socially-Aware Navigation: A Unified Model for Socially Assistive Robots*, advisor David Feil-Seifer, defended May 8, 2020.

- Janelle Blankenburg, *Generalized Task Structure Learning for Collaborative Multi-Robot/Human-Robot Task Allocation,* defended April 2020, advisor David Feil-Seifer.

- Amir Ghasemkhani, *Stochastic Learning and Optimization with Imperfect Data in Cyber-Physical Systems,* advisor Lei Yang, defended November 25, 2019.

- Muhammed Abdul Canbaz, *Internet Topology Mining: From Big Data to Network Science*, advisor Mehmet Gunes, defended April 19, 2018.

- Saul Reed, *Recursive Hyperspheric Classification and its Applications,* advisor Sergiu Dascalu, defended April 25, 2018.

- Mohammad Jafari, Distributed Control of Multi-Agent Systems Using Biologically-Inspired Reinforcement Learning, advisor Hao Xu, defended May 2018.

- Esra Erdin, *A Decentralized Online Social Network*, defended May 8 2017, advisor Mehmet Gunes.

- Siming Liu, *Evolving Effective Micro Behaviors for RTS Games*, defended May 2015, advisor Sushil Louis.

- Christopher Ballinger, Co-evolutionary Approaches to Generating Robust Build-Orders for Real-Time Strategy Games, defended 12/2/2014, advisor Sushil Louis.

- Roger Hoang, *An Extensible Component-based Approach to Simulation Systems on Heterogeneous Clusters*, defended 05/13/2014, advisor Fred Harris.

- Amol Ambardekar, *Vehicle Classification Framework: Online Classification with Tracking*, defended 4/20/12, advisor Mircea Nicolescu.

- Mehmet Burak Akgun, *Dual Layer Scale-Free Network Topology Synthesis*, defended 06/10/2014, advisor Mehmet Gunesh.

- Hasan Karaoglu, *Contract Routing Architecture*, defended 08/3/2012, advisor Murat Yuksel.

- Suat Mercan, *Virtual Directional Multicast for Overlay Networks*, defended 07/07/2011, advisor Murat Yuksel

- Adrienne Breland, *Fast-Graph Approach to Modelling Similarity of Whole Genomes*, defended 03/16/2011, advisors Fred Harris and Karen A. Schlauch.

- Mehmet Bilgi, defended 11/17/2010, advisor Murat Yuksel.

- Suat Mercan, *Virtual Directional Multicast for Overlay Networks*, passed his qualification exam 12/01/2010, advisor Murat Yuksel.

- Alireza Tavakkoli, *A Non-Parametric Framework for Object Tracking in Videos with Quasi-Stationary Backgrounds*, defended 04/22/2009, advisor Mircea Nicolescu.

- Bei Yuan, *Towards Generalized Accessibility of Video Games for the Visually Impaired*, defended 04/29/2009, advisor Fred Harris.

- Leandro Loss, *Iterative Tensor Voting for Perceptual Grouping of Natural Shapes in Cluttered Backgrounds*, defended 04/10/2009, advisor George Bebis.

- Gholamreza Amayeh, *A Component-Based Approach to Hand-Based Verification and Identification System*, defended 11/20/2009, advisor George Bebis.

- Anil Shankar, *SYCOPHANT, A Context Based Generalized User Modeling Framework for Desktop Applications*, graduated 05/13/2008, advisor Sushil Louis.

- Sara Nasser, *Fuzzy Sequence Classification and Assembly of Environmental Genomes*, graduated 03/17/2008. advisor Fred Harris.

- Chris Miles, *Co-Evolving Real Time Strategy Game Players*, graduated 08/08/2007, advisor Sushil Louis.

- Ekkasit Tiamkaew, *Techniques for Improving Efficiency and Accuracy of Contemporary Dynamic Branch Predictors*, graduated Spring 2005, advisor Angkul Kongmunvattana.

Master of Science Thesis Committee Member (students who graduated)

- David Kweku, *A Combined Functional Data & Mixture Models Approach for Modeling and Classification of Nanomotion*, advisor Ania Panorska, defended November 22, 2021.

- Alina Giri, *Exploring the COVID-19 Cases Around the World,* advisor Ania Panorska, defended July 23, 2021.

- Athanasia Katsila, *Active Peer Pressure in Human-Robot Interaction*, advisor David Feil-Seifer, defended December 4, 2018.

- Blanca Miller, *K-12 Curriculum and Robotics to Address the Workforce Shortage and Advancement of Computing*, advisor David Feil-Seifer, defended May 10, 2018.

- Frank Mascarich, *Radiation Field Characterization using Autonomous Robots*, advisor Konstantinos Alexis, defended May 10, 2018.

- Janelle Blankeburg, *A Distributed Control Architecture for Collaborative Multi-Robot Task Allocation*, advisor David Feil-Seifer, defended December 1, 2017.

- Shehryar Khattak, *Multi-Modal Landmark Detection and Tracking for Odometry Estimation in Degraded Visual Environments*, advisor Konstantinos Alexis, defended December 6, 2017.

- Meera Sebastian, *Socially-Aware Navigation Planner Using Models of Human-Human Interaction*, advisor David Feil-Seifer, defended September 6, 2017.

- Pourya Hoseini, *Active Vision for Object Recognition by Dynamically Fusing Eye-in-Hand Data*, advisor Mircea Nicolescu, defended December 1, 2017.

- Devin Connell, *Dynamic Path Planning and Replanning for Mobile Robot Team Using RRT**, advisor Jim La, defended May 5, 2017.

- Dillon Aberasturi, *Self-Similarity of Random Aggregation Trees in Hyperbolic Spaces*, advisor Ilia Zaliapin, graduated May 25 2017.

- Alexander Gamino, *HMM-Based Techniques for Intent Recognition in a Simulated Realistic Naval Environment,* advisor Mircea Nicolescu, graduated May 2016.

- David Frank, *Deep Learning Based Robust Human Body Segmentation for Pose Estimation from RGB-D Sensors*, advisor David Feil-Seifer, graduated May 2016.

- Mohamad Jafari, *On The Cooperative Control And Obstacle Avoidance Of Multi-Vehicle Systems*, defended December 2015, advisor Shamik Sengupta.

- Mohammad Taghi Saffar, *Intent Recognition Using an Activation Spreading Architecture*, advisor Mircea Nicolescu, graduated April 2015.

- Khoa Tran, graduated 5/7/2014, *Motion Segmentation in a Dynamic Scene based on Parametric Motion Modeling using Generalized Principal Component Analysis*, advisor Mircea Nicolescu.

- Jin Jiang, *Robust Event Dectection and Retrieval in Surveillance Video,* graduated 5/6/2014, advisor Mircea Nicolescu.

- Abbas Ardakany, *An Extended Local Binary Pattern for Gender Classification*, graduated 12/16/2013, advisor Mircea Nicolescu.

- Alexander Redei, *A Software Method for Automating Chemical Cell Lysis of Mammalian Cells for the Forensic Sciences*, graduated 12/5/2013, advisor Sergiu Dascalu.

- Andrew Dobson, *Provably Asymptotically Near-Optimal Motion Planning with Sparse Data Structures*, graduated 5/29/2012, advisor Kostas Bekris.

- Ryan Luna, *Efficient Multi-Robot Path Planning in Discrete Spaces*, graduated 04/18/2011, advisor Kostas Bekris.

- Jigarkumar Patel, defended 04/14/2010, advisor Sergiu Dascalu.

- Sridhar Annumandla, defended 11/30/2010, advisor Fred Harris.

- Yanbo Li, defended 12/08/2010, advisor Kostas Bekris.

- Julide Koracin, graduated 05/04/2009, advisor George Bebis.

- Benjamin Haas, graduated 04/23/2009, advisor Sami Fadali.

- Pradeep Katta, *Integrating Depth and Intensity Information for Vision-Based Head Tracking*, graduated 08/06/2008, advisor Mircea Nicolescu.

- Adrienne Breland, *A Supervised Strain Classifier*, graduated 03/14/2008, advisor Fred Harris.

- Mehmet Bilgi, *Capacity Scaling in Free-Space-Optical Mobile Ad-Hoc Networks*, graduated 04/16/2008, advisor Murat Yuksel.

- Burcu Bolukbasi, *PocketBaby: PDA Software for Monitoring Pregnancy Evolution*, graduated 06/08/2007, advisor Sergiu Dascalu.

- Amol Ambardekar, *Efficient Vehicle Tracking and Classification for an Automated Traffic Surveillance System*, graduated 12/03/2007, advisor Mircea Nicolescu.

- Chang Jia, *Object Tracking Using an Enhanced Adaptive Background CAMSHIFT Algorithm*, graduated 11/30/2007, advisor Mircea Nicolescu.

- Tony Morelli, *Game Teleporter: A Development Tool for Everyone*, graduated 04/13/2007, advisor Dwight Egbert.

- Chris Miles, *Case-Injected Genetic Algorithms in Computer Strategy Games*, graduated 4/14/06, advisor Sushil Louis.

- Qunming Peng, *Brainstem: A NeoCortical Simulator Interface for Robotic Studies*, graduated 10/30/06, advisor Fred Harris.

- Anil Shankar, *Simple User-Context for Better Application Personalization*, graduated Fall 2005, advisor Sushil Louis.

- Kai Xu, *A Scalable Parallel Genetic Algorithm for X-ray Spectroscopic Analysis*, graduated Spring 2005, advisor Sushil Louis.

- Andrew Klempau, graduated Spring 2005, advisor Angkul Kongmunvattana.

- Shyamala Palanisamy, *Multi Level Edges and Segments*, Professional Paper, graduated Fall 2004, advisor Carl Loney.

- Juan Carlos Macera, *Design and Implementation of a Hierarchical Robotic System: A Platform for Artificial Intelligence Investigation*, graduated Fall 2003, advisor Fred Harris.

- Jeremy Buchmann, *Selective Naive Bayes Classification*, graduated Fall 2003, advisor Sushil Louis.

PhD Committee Chair (current students)

- Tyler Becker (started 2023)

- Md. Azizul Hakim (started 2022)

- Mayamin Hamid Raha (started 2021)

- Md. Abu Sayed (started 2021)

- Parvaneh Aliniya (started 2022), co-advised with Mircea Nicolescu.

- Ayesh Meepaganithage (started 2022), co-advised with Mircea Nicolescu.

- Andrew Palmer (started 2017, on leave)

Undergraduate Students:

- Tyler Becker (Undergraduate Research, Spring 2021 – 2022)

- Franco Azael Hernandez Quintero (Undergraduate Research, Spring 2022)
- Aaron Garza (Undergraduate Research, Summer 2022)
- Eric Duong (Undergraduate Research, 2019 – 2020)
- Dalton Navalta (Undergraduate Research, Fall 2016 – 2018)
- Logan Carlson (Undergraduate Research, Spring 2017 – 2019)
- Luke Fraser (Undergraduate Research, Spring 2014)
- Jared Rhizor (Undergraduate Research, Spring 2012)
- Alexander McArther (Undergraduate Research, Spring 2012)
- Cynthia Sherman (Undergraduate Research, 2009-2012)
- Qandeel Sajid (Undergraduate Research, 2012-2103)
- Liesl Wigand (Undergraduate Research, Spring 2011)
- Katie Browne (Undergraduate Research, Fall 2010)
- Sebastian Smith (Undergraduate Research, 2005-2006)

Intern Students Involved in Research:
- Juliana Schneider (Davidson Academy, 2020 – 2022)
- Yatin Chandar (Davidson Academy, 2014 – 2015)
- Miranda Cross (Davidson Academy, Fall 2015)
- Tristan Brodeur (2015)
- Alexandre Trinidade (exchange student, Brasil, Summer 2015)
- Henrique Azevedo (exchange student, Brasil, Summer 2015)
- Connor Richard Novak (Davidson Academy, Summer 2015)

AWARDS AND HONORS

- UNR Outstanding Researcher Award (2017)
- Nominated for Regents' Researcher of the Year Award (2016)
- Nominated for Nevada Women's Fund (NWF) Women of Achievement Award (2016)
- Nominated for Women of Achievement Award from University of Nevada, Reno (2013)
- Early Career Development (CAREER) Award, National Science Foundation (2006)
- Best Paper Award, Hawaii International Conference on System Sciences, HICSS-36 (2003)
- USC Women in Science and Engineering (WISE) award (2002)
- Upsilon Pi Epsilon International Honor Society for the Computing Sciences (2002)

- DARPA/NSF Study on Human-Robot Interaction (invitation-only workshop) travel award (2001)

- USC Women in Science and Engineering (WISE) award (2001)

- Autonomous Agents Conference travel award (2000)

- USC Academic Achievements Award, (2000 and 2003)

- Eighth Annual AAAI Mobile Robot Competition, Third Place on "Hors d'oeuvres anyone?" and Special Award for innovative Robot-Human Interface in the "Challenge" event (as member of the USC Robotics Lab team) (1999)

- Scholarship, the First European Agent Systems Summer School, Utrecht, The Netherlands (1999)

- Seventh Annual AAAI Mobile Robot Competition, Second Place on "Find Life on Mars" Single Agent Non-Manipulator category (as member of the USC Robotics Lab team) (1998)

- TEMPUS Scholarship at the National Polytechnic Institute of Grenoble, FRANCE (Feb 1995 – Aug 1996)

- Romanian Governmental Merit-Based Fellowship (1990-1995, 1995-1996)

STUDENT AWARDS

- Tyler Becker, *NSF EPSCoR Undergraduate Research Opportunity Program* (2020)

- Eric Duong, *NSF EPSCoR Undergraduate Research Opportunity Program* (2019)

- Logan Carlson, *Nevada NASA Space Grant Consortium (NVSGC)* (2018)

- Logan Carlson, *Nevada Undergraduate Research Award* (2018)

- Jared Rhizor, *Undergraduate Research Award* (2013)

- Alexander McArther, *Undergraduate Research Award* (2013)

- Richard Kelley, *UNR Regents Graduate Scholar Award* (2013)

- Richard Kelley, *CSE Outstanding Graduate Student of the Year Award* (2013)

FUNDING

- *Intent Recognition for On-Water Adversarial Agents,* **Office of Naval Research,** PI (Co-PI: Mircea Nicolescu), **Amount: $900,000**, March 2022 - February 2025.

- *Hololens 2 Devices for Augmented and Virtual Reality Instruction*, UNR COEN Differential Fees, PI (Co-PI: Mircea Nicolescu, George Bebis, Alireza Tavakkoli, Eelke Folmer), **Amount: $42,000**, July 2022 – June 2023).

- *REU Site: Collaborative Human-Robot Interaction for Robots in the Field*, **National Science Foundation**, Senior Personnel (PI: David Feil-Seifer, Co-PI: Emily Hand, Senior Personnel: Christos Papachristos, Alireza Tavakkoli, William Toledo, **Amount: $405,000**, March 1, 2022 – February 28, 2025.

- *Robot Learning through PbD via Natural Language Processing and Social Robotics,* **Pack Research Experience Program (PREP), University of Nevada, Reno**, Advisor, (Student: Azael Hernandez Quintero), **Amount: $2000**, January-May 2022.

- *A Personalized, Muti-Modal Interactive Robot Assistant for People with Limited Mobility*, **University of Nevada Reno, Research Enhancement Grant**, PI, **Amount: $20,000**, July 1, 2021 – June 30, 2022.

- *A Robot Control Architecture for Tightly-Coupled and Temporally Constrained Tasks*, **National Science Foundation EPSCoR Undergraduate Research Opportunity Program (NSF EPSCoR UROP)**, Advisor (Student: Tyler Becker), Amount: $4,000, 2020-2021.

- *Intent Recognition for Adversarial Groups using Dynamic, Predictive Threat Heatmaps*, **Office of Naval Research,** PI (Co-PI: Mircea Nicolescu), **Amount: $585,834,** 04/01/2021 - 03/31/2024.

- *From Heterogeneous Individual Capabilities to Emerging Teamwork: An Architecture for Effective Human-Agent Teams,* **DOD Army Research Lab**, PI (Co-PI: Mircea Nicolescu, David Feil-Seifer), **Amount: $99,943**, 05/01/2020 to 04/30/2021.

- *A Model of Trust for Human-Robot Interactions*, **National Science Foundation EPSCoR Undergraduate Research Opportunity Program (NSF EPSCoR UROP)**, Advisor (Student: Eric Duong), Amount: $4,000, 2019-2020.

- *An Assistance, Collaboration, and Service Research Platform For Human-Robot Interaction In the Wild*, **Quori**, Co-PI, (PI: David Feil-Seifer), March 1, 2019.

- *RET Site: Cross-disciplinary Research Experiences on Smart Cities for Nevada Teachers: Integrating Big Data into Robotics,* **National Science Foundation,** Senior Personnel, (PI: Alexis Kostas), **Amount: $581,073**, September 1, 2018 - August 31, 2021.

- *Expanding Robotics Teaching and Experimenting*, **COEN Differential Fees, University of Nevada, Reno**, Co-PI (PI: Hung La, Co-PI: David Feil-Seifer, Sushil Louis, Wanliang Shan), **Amount: $35,000**, 2018.

- *Nevada Undergraduate Research Award*, **UNR Undergraduate Research, University of Nevada, Reno**, Advisor (Student: Logan Carlson), **Amount: $1,800**, 2018.

- *Latent Variable Models for Intrusion Detection and Intent Classification in Autonomous Vehicles*, **Nevada NASA Space Grant Consortium**, Advisor (Student: Logan Carlson), **Amount: $4,000**, 2018.

- *CHS: Small: Socially-Aware Navigation*, **National Science Foundation**, Co-PI (PI: David Feil-Seifer), **Amount: $500,000**, September 1, 2017 – August 31, 2020.

- *REU Site: Collaborative Human-Robot Interaction*, **National Science Foundation,** Senior Personnel (PI: David Feil-Seifer), **Amount: $360,000***,* 2017-2020.

- *Undergraduate and Graduate Robotics Curriculum for UNR College of Engineering,* **Nevada NASA Space Grant Consortium higher Education – Curriculum Development**, Co-PI (PI: David Feil-Seifer), **Amount: $44,999**, September 1, 2016 – August 31, 2017.

- *Long-Range Laser Sensors to Modernize Equipment*, **University of Nevada, Reno**, Co-PI (PI: David Feil-Seifer, Co-PI: Hung La), **Amount: $7,425**, 2017.

- *Designing Collaborator Robots for Highly-Dynamic Multi-Human, Multi-Robot Teams*, **Office of Naval Research**, PI (Co-PI: Mircea Nicolescu, David Feil-Seifer), **Amount: $656,511**, April 1, 2016 – March 31, 2019.

- *Intent Recognition for On-Water Dynamic Maritime Domains*, **Office of Naval Research**, PI (Co-PI: Mircea Nicolescu, Terry Huntsberger – JPL), **Amount: $685,355**, March 2016 - February 2018.

- *Humanoid Platforms for Human-Robot Collaboration*, **Office of Naval Research**, PI (Co-PIs: Mircea Nicolescu, David Feil-Seifer), **Amount: $312,500**, June 15, 2014 - June 14, 2015.

- *Cluster of Excellence in Advanced Manufacturing at the University of Nevada, Reno,* **University of Nevada, Reno,** Co-PI (PI: Kam Leang, Co-PIs: George Bebis Alan Fuchs, Miles Greiner, Yanyao Jiang, Ghassan Jabbour), 3 Faculty positions for Mechanical Engineering, Computer Science and Engineering and Chemical and Materials Engineering, 2013.

- *Distributed Visualization of Spiking Networks*, **University of Nevada, Reno, Undergraduate Research Award** (Student: Alexander McArther), **Amount: $1,500**, May 2013 – April 2014.

- *Vision-based robot localization for SPHERES*, **University of Nevada, Reno, Undergraduate Research Award** (Student: Jared Rhizor), **Amount: $1,500**, May 2013 – April 2014.

- *Understanding Intent Using an Activation Spreading Architecture*, **Office of Naval Research**, PI (Co-PI: Mircea Nicolescu, Sushil Louis), **Amount: $590,992**, July 1, 2012 – June 30, 2015.

- *Advanced Computer Vision, Robotics, and Visualization Algorithms For Improving Planetary Exploration and Understanding*, **NASA**, Co-PI, (PI: George Bebis, Co-PI: Thomas Jackman), **Amount: 629,872**, September 1, 2011 – August 31, 2015.

- *High Throughput Tissue Microarray (TMA) Construction and Interpretation to Facilitate Biomarker Discovery – phase 2*, **University of Nevada, Reno**, Co-PI, (PI: Sanford Barsky, Co-PI: Emil Geiger), Amount: **$20,000**, 2012.

- *High Throughput Tissue Microarray (TMA) Construction and Interpretation to Facilitate Biomarker Discovery – phase 1*, **University of Nevada, Reno**, Co-PI, (PI: Sanford Barsky, Co-PI: Emil Geiger), **Amount: $3,000**, 2012.

- *Differential Fees Application - Robotics*, **University of Nevada, Reno**, PI, **Amount: $4151.68**, 2012.

- *Research Experience for Undergraduates*, **National Science Foundation**, PI, **Amount: $8,000**, January 1, 2007 – December 31, 2011.

- Context-Based Intent Understanding for Autonomous Systems in Naval and Collaborative Robotics Applications, **Office of Naval Research**, PI (Co-PI: Mircea Nicolescu, Sushil Louis), **Amount $543,280,** August 1, 2009 – July 31, 2012.

- *Cyberinfrastructure* – part of Nevada EPSCoR "Climate Change" proposal, **National Science Foundation – EPSCoR**, Senior Personnel (PI: Sergiu Dascalu, **2,293,893**), 2008 – 2013.

- *Autonomous Intelligent Rover Design*, **National Science Foundation**, PI, (Co-PI: Eric Wang, Jeffrey Lacombe), **Amount: $29,080**, August 1, 2007 – July 31, 2008.

- *An Enhanced Hands-On Learning Experience in Computer Science and Engineering*, **UNR Student Technology Fee Distribution, University of Nevada, Reno**, PI (Co-PI: Mircea Nicolescu, Sergiu Dascalu), **Amount: $11,580**, June 1 2007 – October 31, 2007.

- *Research Experience for Undergraduates*, **National Science Foundation,** PI, **Amount: $12,000**, January 15, 2007 - December 31, 2010.

- *Special Projects - NevadaSat: University Rover Challenge*, **Nevada System of Higher Education (NSHE)**, Co-PI (PI: Eric Wang, Co-PI: Jeffrey Lacombe), **Amount: $28,501**, January 1 2007 – June 30, 2009.

- *Special Projects – NevadaSat: Workforce Development*, **Nevada System of Higher Education (NSHE)**, Co-PI (PI: Eric Wang, Co-PI: Jeffrey Lacombe**), Amount: $62,500**, January 1, 2007 – December 31, 2008.

- *Large-Scale, Synaptically Realistic Models of Cortical Microcircuit Dynamics*, **Office of Naval Research**, Co-PI (PI: Phillip Goodman, Co-PI: Fred Harris, Rene Doursat, Henry Markram), **Amount $877,000**, October 1, 2006 – September 31, 2009.

- *NevadaSat: Workforce Development*, **University of Nevada, Reno**, Co-PI (PI: Eric Wang, Co-PI: Jeffrey Lacombe), **Amount: $62,500**, October 1, 2006 – June 31, 2007.

- *A Computational Model for Intent Understanding*, **National Science Foundation**, Co-PI (PI: Mircea Nicolescu, Co-PI: Sami Fadali, Linda Hayes, Alireza Tavakkoli), **Amount: $75,600**, July 1, 2006 - June 30, 2008.

- *Integrating Computer Vision and Robotics Teaching Programs*, **UNR Instructional Enhancement Grant**, **University of Nevada, Reno,** Co-PI (PI: Mircea Nicolescu, Co-PI: George Bebis), **Amount: $1,400**, July 1, 2006 – June 30, 2007.

- *Understanding Intent Using a Novel Hidden-Markov Representation*, **Office of Naval Research (ONR)**, PI, (Co-PI: Mircea Nicolescu), **Amount: $619,584**, June 1, 2006 - May 31, 2009.

- *An Integrated Teaching Infrastructure for Computer Vision and Robotics*, Student Technology Fee Distribution, **University of Nevada, Reno**, Co-PI (PI: Mircea Nicolescu, Co-PI: Yaakov Varol), **Amount: $23,200**, June 1, 2006 – October 1, 2006.

- *Video Games and Robots: A Level Playing Field,* **Instructional Enhancement Grant, University of Nevada, Reno**, Co-PI (PI: Dwight Egbert), **Amount: $3,000**, June 2006 - May 2007.

- *Research Experience for Undergraduates*, **National Science Foundation,** PI, **Amount: $12,000**, January 15, 2006 - December 31, 2010.

- *NevadaSat: Nevada Student Satellite Program I*, **NASA**, Co-PI (PI: Jeffrey C. LaCombe, Co-PI: Eric L. Wang) Amount: $15,000, February 1, 2006 – June 30, 2007.

- *NevadaSat: Nevada Student Satellite Program II*, **NASA**, Co-PI, (PI: Eric L. Wang, Co-PI: Jeffrey C. LaCombe), **Amount: $15,000**, February 1, 2006 – June 30, 2007.

- *Bacterial sample preparation and pattern recognition development, Phase I*, **Nevada Nanotech Inc.**, Co-PI (PI: Eric Marchand), **Amount: $10,000**, February 1, 2006 – October 31, 2006.

- *Design and Evaluation of Methods for Robot Learning by Demonstration*, **National Science Foundation, Early Career Development Award (CAREER)**, PI, **Amount: $410,000**, January 15, 2006 - January 14, 2011.

- *Enhanced Pattern Recognition of Target Chemicals and Bacteria Species with a Compact Chemical Vapor Detection System*, **National Science Foundation**, PI (Co-PI: Joseph Cline), **Amount: $76,322**, January 1, 2006 - December 31, 2007.

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- *Virtual At Sea Training*, **Office of Naval Research**, Co-PI: Monica Nicolescu (PI: Sushil Louis, Co-PI: Sergiu Dascalu), **Amount: $416,584**, October 1, 2005 - September 30, 2008.

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- *Robotic Platform for Security and Service Applications*, **Office of Naval Research, DURIP**, Co-PI (PI: Philip Goodman), **Amount: $210,593**, May 1, 2005 - April 30, 2006.

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- *Enhanced Robotics Curriculum for the Department of Computer Science and Engineering*, **Student Technology Fee Distribution, University of Nevada, Reno**, PI (Co-PI: Yaakov Varol), **Amount: $12,000**, January 1, 2004 - December 31, 2004.

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- Jeff C. LaCombe, Eric L. Wang, Monica Nicolescu, Pablo Rivera, B. Poe, "Design Experiences with a Student Satellite Program", *Proceedings of the American Society for Engineering Education, Pacific Southwest Section Conference*, Reno, NV, USA, April 12-13, 2007.

- Sara Nasser, Gregory Vert, Monica Nicolescu, "Fuzzy Classification of Genome Sequences Prior to Assembly Based on Similarity Measures", *Proceedings of the North American Fuzzy Information Processing Society Conference*, pages 354-359, San Diego, CA, June 24-27, 2007.

- Monica Nicolescu, Odest Chadwicke Jenkins, Adam Olenderski, "Learning Behavior Fusion Estimation from Demonstration", in *Proceedings, IEEE International Symposium on Robot and Human Interactive Communication (RO-MAN 06)*, pages 340-345, Hatfield, UK, September 6-8, 2006.

- Monica Nicolescu, Odest Chadwicke Jenkins, Adam Olenderski, "Behavior Fusion Estimation for Robot Learning from Demonstration", *Proceedings, IEEE 2006 Workshop on Distributed Intelligent Systems (DIS06)*, pages 31-36, Prague, Czech Republic, June 15-16, 2006.

- Adam Olenderski, Monica Nicolescu, Sushil Louis, "A Behavior-Based Architecture for Realistic Autonomous Ship Control", *Proceedings, IEEE Symposium on Computational Intelligence and Games (CIG06)*, pages 148-155, Reno, NV, USA, May 22-24, 2006.

- Michael Capps, Joseph Liu, Edward Resnik, Monica Nicolescu, "Specification and Design of a High Risk Surveillance Vehicle", *Proceedings, International Conference on Software Engineering Research and Practice (SERP 2005)*, pages 864-869, Las Vegas, NV, USA, June 27-30, 2005.

- Ryan Leigh, Tony Morelli, Sushil Louis, Monica Nicolescu, Chris Miles, "Finding Attack Strategies for Predator Swarms Using Genetic Algorithms", *Proceedings, IEEE Congress on Evolutionary Computation*, pages 2422-2428, Edinburgh, SCOTLAND, September 2-5, 2005.

- Adam Olenderski, Monica Nicolescu, Sushil Louis, "Robot Learning by Demonstration Using Forward Models of Schema-Based Behaviors", *Proceedings, International Conference on Informatics in Control, Automation and Robotics*, pages 263-269, Barcelona, SPAIN, September 14-17, 2005.

- Monica N. Nicolescu, Maja J Matarić, "Natural Methods for Learning and Generalization in Human-Robot Domains", *Proceedings, Second International Joint Conference on Autonomous Agents and Multi-Agent Systems*, pages 241-248, Melbourne, AUSTRALIA, July 14-18, 2003 (best student paper nomination).

- Monica N. Nicolescu, Maja J Matarić, "Linking Perception and Action in a Control Architecture for Human-Robot Domains", *Proceedings, Thirty-Sixth Hawaii International Conference on System Sciences*, Hawaii, USA, page 126-136, January 6-9, 2003 (best paper award).

- Monica N. Nicolescu, Maja J Matarić, "A hierarchical architecture for behavior-based robots", *Proceedings, First International Joint Conference on Autonomous Agents and Multi-Agent Systems*, pages 227-233, Bologna, ITALY, July 15-19, 2002.

- Monica N. Nicolescu, Maja J Matarić, "Experience-based representation construction: learning from human and robot teachers", *Proceedings, IEEE/RSJ International Conference on Intelligent Robots and Systems*, pages 740-745, Maui, Hawaii, USA, October 29 - November 3, 2001.

- Monica N. Nicolescu, Maja J Matarić, "Experience-based learning of task representations from human-robot interaction", *Proceedings, IEEE International Symposium on Computational Intelligence in Robotics and Automation*, pages 463-468, Banff, Alberta, CANADA, July 29 - August 1, 2001.

- Monica N. Nicolescu, Maja J Matarić, "Learning Cooperation From Human-Robot Interaction", *Proceedings, 5th International Symposium on Distributed Autonomous Robotic Systems (DARS)*, pages 477-478, Knoxville, TN, USA, October 4-6, 2000.

- Monica N. Nicolescu, Maja J Matarić, "Deriving and Using Abstract Representation in Behavior-Based Systems", *Proceedings, Seventeenth National Conference on Artificial Intelligence (AAAI)*, page 1087, Austin, Texas, USA, July 30-August 3, 2000.

- Odest C. Jenkins, Monica Nicolescu, Maja J Matarić, "Autonomy and Supervision for Robot Skills and Tasks Learned from Demonstration", *Proceedings, American Association for Artificial Intelligence, Workshop on Supervisory Control of Learning and Adaptive Systems*, pages 27-29, San Jose, CA, July 25, 2004.

- Monica N. Nicolescu, Maja J Matarić, "Natural Methods for Learning and Generalization in Human-Robot Domains", *Proceedings, AAAI Spring Symposium on Human Interaction with Autonomous Systems in Complex Environments*, pages 154-159, Palo Alto, CA, March 24-26, 2003.

- Monica N. Nicolescu, Maja J Matarić, "Learning task representations from experienced demonstrations", *Proceedings, AAAI Fall Symposium on Anchoring Symbols to Sensor Data in Single and Multiple Robot Systems*, pages 1-6, North Falmouth, MA, Nov 2-4, 2001.

INVITED CONFERENCE PAPERS

- Monica N. Nicolescu, Maja J Matarić, "Extending Behavior-Based Systems Capabilities Using An Abstract Behavior Representation", *Working Notes of the AAAI Fall Symposium on Parallel Cognition*, pages 27-34, North Falmouth, MA, USA, November 3-5, 2000.

TECHNICAL REPORTS

- Monica Nicolescu, Maja J Matarić, "Natural Methods for Learning and Generalization in Human-Robot Domains", *USC Center for Robotics and Embedded Systems Technical Report CRES-02-006*, December 2002.

- Monica Nicolescu, Maja J Matarić, "Learning and Interacting in Human-Robot Domains", *USC Institute for Robotics and Intelligent Systems Technical Report IRIS-01-395*, January 2001.

- Monica Nicolescu, Maja J Matarić, "Extending Behavior-Based Systems Capabilities Using An Abstract Behavior Representation", USC *Institute for Robotics and Intelligent Systems Technical Report IRIS-00-389*, July 2000.

PhD THESIS

- Monica Nicolescu, "A Framework for learning from Demonstration, Generalization and Practice in Human-Robot Domains", USC Center for Robotics and Embedded Systems, May 2003.

INVITED TALKS/PRESENTATIONS (excluding conference paper talks)

- "Intent Recognition for On-Water Adversarial Agents", *Office of Naval Research PI Meeting Kick-off*, March 2022.

- "Intent Recognition for Adversarial Groups using Dynamic, Predictive Threat Heatmaps", *Office of Naval Research PI Meeting, Cooperative Autonomous Swarm Technology (CAST) Program Review*, May 2021, May 2022.

- "Intent Recognition for Adversarial Groups using Dynamic, Predictive Threat Heatmaps", *Office of Naval Research PI Meeting Kick-off*, May 2021.

- "Designing Collaborator Robots for Highly-Dynamic Multi-Human, Multi-Robot Teams", *Office of Naval Research Science of Autonomy PI Meeting* (program review), Washington, DC, August 10, 2019.

- "Designing Collaborator Robots for Highly-Dynamic Multi-Human, Multi-Robot Teams", *Office of Naval Research Computational Cognitive Science and Human-Robot Interaction PI Meeting* (program review), Washington, DC, May 29, 2019.

- "Designing Collaborator Robots for Highly-Dynamic Multi-Human, Multi-Robot Teams", *Office of Naval Research Science of Autonomy PI Meeting* (program review), Washington, DC, August 7, 2018.

- "Designing Collaborator Robots for Highly-Dynamic Multi-Human, Multi-Robot Teams", *Office of Naval Research Computational Cognitive Science and Human-Robot Interaction PI Meeting* (program review), Washington, DC, June 5, 2018.

- "Designing Collaborator Robots for Highly-Dynamic Multi-Human, Multi-Robot Teams", *Office of Naval Research Science of Autonomy PI Meeting* (program review), Washington, DC, August 1, 2017.

- "Designing Collaborator Robots for Highly-Dynamic Multi-Human, Multi-Robot Teams", *Office of Naval Research Computational Cognitive Science and Human-Robot Interaction PI Meeting* (program review), Washington, DC, June 21, 2017 (contributed work as PI).

- "Human-Robot Interaction Research at UNR", invited talk at NAASIC, November 1, 2016.

- "Intent Recognition for On-Water Dynamic Maritime Domains and Intent Recognition for On-Water Dynamic Maritime Domains", *Office of Naval Research Science of Autonomy PI Meeting* (program review), Washington, DC, August 17, 2016.

- "Designing Collaborator Robots for Highly-Dynamic Multi-Human, Multi-Robot Teams", *Office of Naval Research Computational Cognitive Science and Human-Robot Interaction PI Meeting* (program review), Washington, DC, August 10, 2016.

- "Intent Recognition for On-Water Dynamic Maritime Domains", *Office of Naval Research PI Meeting* (program review), Reno, NV, December 15, 2015.

- "Intent Recognition for On-Water Dynamic Maritime Domains", *Office of Naval Research PI Meeting* (program review), Washington, DC, August 11, 2015.

- "Understanding Intent Using an Activation-Spreading Architecture", *Office of Naval Research PI Meeting* (program review), Washington, DC, August 7, 2015.

- "UNR CAREER Workshop", University of Nevada, Reno, February 2014.

- "Understanding Intent Using an Activation-Spreading Architecture", *Office of Naval Research Computational Cognitive Science and Human-Robot Interaction PI Meeting* (program review), Washington, DC, August 12, 2014.

- "Understanding Intent Using an Activation-Spreading Architecture", *Office of Naval Research Science of Autonomy PI Meeting* (program review), Washington, DC, August 19, 2014.

- "Social Robotics Research at UNR", invited talk at the Junior Science and Humanities Symposium, Reno, NV, March 8, 2014.

- "Intent Recognition in Naval and Robotic Application Domains", invited talk at the *Karles Invitational Conference*, Naval Research Laboratory, Washington DC, January 13-14, 2014.

- "Understanding Intent Using an Activation Spreading Architecture", *Office of Naval Research PI Meeting* (program review), June 2013.

- "Understanding Intent Using an Activation Spreading Architecture", *Office of Naval Research Science of Autonomy PI Meeting* (program review), April 2013.

- "Social Robotics Research", invited talk at the College of Engineering Advisory Board meeting, April 2013.

- "Context-Based Intent Understanding for Autonomous Systems in Naval and Collaborative Robotics Applications", *Office of Naval Research PI Meeting* (program review), Washington, DC, June 12, 2012.

- "Context-Based Intent Understanding for Autonomous Systems in Naval and Collaborative Robotics Applications", *Office of Naval Research, PI Meeting* (program review), Washington, DC, December 2011.

- "Intent Understanding in Naval and Robotic Domains", invited talk at the *Naval Postgraduate School*, Monterey, CA, December 2011.

- "Robotics Lecture Series", invited lecture at *Osher Lifelong Learning Institute*, September 2011.

- "Context-Based Intent Understanding for Autonomous Systems in Naval and Collaborative Robotics Applications", *Office of Naval Research, PI Meeting* (program review), Washington, DC, June 2011.

- "Context-Based Intent Understanding for Autonomous Systems in Naval and Collaborative Robotics Applications", *Office of Naval Research, Science of Autonomy PI Meeting* (program review), Washington, DC, April 2011.

- "Context-Based Intent Understanding for Autonomous Systems in Naval and Collaborative Robotics Applications*", Office of Naval Research PI Meeting*, Washington DC, June 2010.

- "Understanding Intent Using a Novel Hidden Markov Formulation", *Office of Naval Research PI meeting*, Arlington, Virginia, June 2009.

- Presentation for 8-grade students for the Career Exploration Day of the *Education Collaborative of Washoe County*, April 5, 2007.

- "Understanding Intent Using a Novel Hidden Markov Formulation", *Office of Naval Research PI meeting*, Arlington, Virginia, May 3, 2007.

- "Robotic Platform for Security and Service Applications", *Office of Naval Research PI meeting*, Arlington, Virginia, May 3, 2007.

- "Survey Results", *NSF Workshop on Human-Robot Interaction,* National Science Foundation, Los Angeles, CA, 2006.

- "High-school seminar for KEEP (Nevada K-16 Education and Engineering Program)", *UNR Raggio Center*, University of Nevada, Reno, 2006.

- "Engineer's Day Presentation", *College of Engineering*, University of Nevada, Reno, 2005, 2006 and 2007.

- Presentation to high-school and elementary school students, *Nevada K-16 Education and Engineering Program (KEEP)*, March 14, 2006.

- Lab robot demonstration for middle school students from the Washoe County School district, April 5, 2006.

- Lab robot demonstration, 4-H Discover Your Future conference, organized by the *Nevada 4-H Office*, for the University of Nevada Cooperative Extension, June 19, 2006.

- Presentation, Nevada 4-H Program, organized by the *Cooperative Extension of UNR*, 2006.

- Robot demonstration, *IGT/Computer game engineering event*, October 9, 2006.

- Robot demonstration for "Tech Thursday" event, Northern Nevada's premier technology and entrepreneurial networking event, November 16, 2006.

- Nevada EPSCoR State Conference on Cognitive Information Processing, May, 2006.

- Presentation at the MESA (Math Engineering and Science Achievement) seminar for high-school and middle-school students, Spring 2005.

- Lab demonstration for Mendive Middle School Visit, March 2005.

- "Technology Exposition Presentation", *UNR*, University of Nevada, Reno, 2005.

- "High-school seminar on STEM (science, technology, engineering & mathematics)", *UNR Raggio Center*, University of Nevada, Reno, 2004.

- "Field-trip for students from the Sparks High School and Clayton Middle School", *UNR MESA (Math Engineering and Science Achievement) Academic Enrichment Program*, University of Nevada, Reno, 2004.

- "Presentation of activities performed with IEG support", *UNR, Instructional Enhancement Grant*, University of Nevada, Reno, 2004.

- "Corporate Partners Presentation", *College of Engineering, University of Nevada, Reno*, October 3, 2003.

- "Industry Advisory Board Presentation", *Department of Computer Science, University of Nevada, Reno*, October 3, 2003.

- "Robot task learning from instructive demonstrations, generalization and practice", *California Institute of Technology*, Pasadena, CA, USA, February 2003.

- "Learning and interacting in human-robot domains", *Computer Science Colloquium Series, Harvey Mudd College*, Claremont, CA, USA, November 2002.

- "An action-embedded framework for learning from demonstration in human-robot domains", *HRL Laboratories*, Malibu, CA, USA, August 2002.

- "Learning through human-robot interaction", for the *DARPA Information Processing Technology Office, DARPATech Symposium*, Anaheim, CA, USA, July 2002.

- "An action-embedded framework for learning from demonstration in human-robot domains ", *USC Learning and Imitation Seminars*, Los Angeles, CA, USA, December 2001.

- "An abstract representation for behavior-based robots", *Philips Research*, Briarcliff Manor, NY, USA, August 2000.

SERVICE

CONFERENCE ORGANIZATION

Program Chair/Co-Chair:

- Conference Track Organizer, Autonomous Agents and Multi-Agent Systems - Robotics Track, May 6-10, 2013.

- Workshop organizer, Pericle Salvini, Monica Nicolescu, Hiroshi Ishiguro, "The Future of HRI – Paving the Way to Next Generation of HRI"*,* full-day workshop proposal at the *IEEE International Conference on Robotics and Automation*, 2012.

- Chair, Workshop and Tutorial Program, IEEE International Conference on Robotics and Automation, Pasadena, California, May 19-23, 2008.

- Organizer, NSF Workshop on Human-Robot Interaction, Los Angeles, CA, September 2006.

- Workshop Co-Chair (with Chad Jenkins), Workshop on Modular Foundations for Control and Perception, in conjunction with the Robotics: Science and Systems Conference, Cambridge, Massachusetts, USA, June 11, 2005.

- Conference Session Co-Chair (with Simon X. Yang), Learning Session, IEEE International Symposium on Computational Intelligence in Robotics and Automation (IEEE CIRA 2001), Banff, Alberta, CANADA, July 29 - August 1, 2001.

Program Committee Member:

- ACM/IEEE International on Human Robot Interaction.

- IEEE International Conference on Robotics and Automation.

- IEEE International Workshop on Advanced Robotics and its Social Impacts.

- IEEE/RSJ International Conference on Intelligent Robots and Systems.

- IEEE International Conference on Robotics and Automation.

- Robotics Science and Systems, Workshop Proposals.

- IEEE International Conference on Development and Learning and on Epigenetic Robotics (July 2014).

- The 23rd IEEE International Symposium on Robot and Human Interactive Communication (March 2014 - April 2014).

- IEEE International Conference on Robotics and Automation, Karlsruhe, Germany, May 6-10, 2013.

- IEEE/RSJ International Conference on Intelligent Robots and Systems, Tokyo, Japan, November 3-8, 2013.

- IEEE-RAS International Conference on Humanoid Robots, Osaka, Japan, Nov 19 – Dec. 1, 2012.

- HRI Pioneers Workshop, Lausanne, Switzerland, March 6, 2011.

- International Conference on Robotics and Automation, Saint Paul, MN, May 14-18, 2012.

- International Conference on Robotics and Automation, Shanghai, China, May 9-13, 2011.

- New Frontiers in Human-Robot Interaction, Leicester, United Kingdom, 30 March - 1 April, 2010.

- International Conference on Informatics in Control, Automation and Robotics, Madeira, Portugal, June 15-18, 2010.

- IEEE International Symposium in Robot and Human Interactive Communication, Viareggio, Italy, Sep. 12 - 15th, 2010.

- Robotics Science and Systems, Seattle, WA, USA, June 28 – July 1, 2009.

- New Frontiers in Human-Robot Interaction Symposium, Edinburgh, Scotland, April 8-9 April 2009.

- 4th ACM/IEEE International Conference on Human-Robot Interaction, San Diego, CA, March 11-13, 2009.

- International Conference on Robotics and Automation, Kobe, Japan, May 12-17, 2009.

- International Conference on Intelligent Robots and Systems (IROS), St. Louis, MO, USA, Oct 11-15, 2009.

- 7th IEEE International Conference on Development and Learning, Monterey, California, August 9th-12th, 2008.

- IEEE/RSJ International Conference on Intelligent Robots and Systems, Nice, France, September 22-26, 2008.

- ACM/IEEE Conference on Human-Robot Interaction (HRI), Amsterdam, March 12-15, 2008.

- IEEE International Conference on Robotics and Automation, Pasadena, California, May 19-23, 2008.

- International Symposium on Imitation in Animals and Artifacts, Newcastle upon Tyne, UK, April 2-5, 2007.

- International Joint Conference on Neural Networks (IJCNN), Orlando, Florida, August 12-17, 2007.

- International Conference on Artificial Intelligence (AAAI), Vancouver, Canada, from July 22-26, 2007.

- IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), San Diego, CA, October 29- November 2, 2007.

- 6th IEEE International Conference on Development and Learning, London, UK, July 11-13, 2007.

- IEEE Symposium on Computational Intelligence and Games (CIG), Honolulu, HI, April 1-5 2007.

- IEEE Symposium on Computational Intelligence and Games (CIG), Reno, NV, May 22-24, 2006.

- International Joint Conference on Neural Networks (IJCNN), Vancouver, BC, Canada, July 16-21, 2006.

- IEEE International Symposium on Robot and Human Interactive Communication (RO-MAN), Hatfield, UK, September 6-8, 2006.

- 23rd International Conference on Machine Learning (ICML), Pittsburgh, Pennsylvania, USA, June 25-29, 2006.

- Human-Robot Interaction Conference (HRI), Salt Lake City, Utah, USA, March 2-4, 2006.

- Autonomous Agents and Multi Agent Systems Conference (AAMAS), Hakodate, JAPAN, May 8-12, 2006.

- International Conference on Robotics and Automation (ICRA), Orlando, USA, May 15-19, 2006.

- International Conference on Robotics and Automation (ICRA), Barcelona, SPAIN, April 18-22, 2005.

- Autonomous Agents and Multi Agent Systems Conference (AAMAS), Utrecht, The Netherlands, Utrecht, The Netherlands, 2005.

- American Association for Artificial Intelligence (AAAI), Pittsburgh, Pennsylvania, USA, July 9-13, 2005.

- International Conference on Advanced Robotics (ICAR 2005), Seattle, Washington, USA, July 18-20, 2005.

- Autonomous Agents and Multi Agent Systems Conference (AAMAS), New York, NY, USA, 19-23 August 2004.

REVIEW WORK

Associate Editor:

- International Journal of Social Robotics

- Journal of Intelligent Service Robotics

Journals:

- Interactive Studies

- Adaptive Behavior

- Autonomous Robots

- IEEE Transactions on Systems, Man and Cybernetics (Special Issue on Human-Robot Interaction)

- Journal of Interaction Studies: Social Behaviour and Communication in Biological and Artificial Systems

- IEEE Transactions on Robotics

- IEEE Transactions on Industrial Electronics

- IEEE Transactions on Neural Networks and Learning Systems

- Imitation and Social Learning in Robots, Humans and Animals: Behavioural, Social and Communicative Dimensions, (chapter review), Cambridge University Press.

- Journal of Intelligent Material Systems and Structures

- International Journal of Robotics and Automation

- Computational Intelligence Journal (Special issue on Artificial Intelligence Methods for Ambient Intelligence)

- Intelligent Service Robotics

- Robotics and Autonomous Systems

- Journal of Cognitive Systems Research

Conferences:

- American Association for Artificial Intelligence National Conference (AAAI)

- International Joint Conference on Artificial Intelligence (IJCAI)

- American Association for Artificial Intelligence Fall Symposium

- International Conference on Autonomous Agents

- Autonomous Agents and Multiagent Systems (AAMAS)

- International Conference on Robotics and Automation (ICRA)

- International Conference on Advanced Robotics (ICAR)

- IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)

- IEEE International Symposium on Computational Intelligence in Robotics and Automation (CIRA)

- IEEE/RAS International Conference on Humanoid Robots

- International Conference on Simulation of Adaptive Behavior (SAB)

- International Conference on Intelligent Autonomous Systems (IAS)

- Human-Robot Interaction Conference (HRI)

- IEEE International Symposium on Robot and Human Interactive Communication (RO-MAN)

- IEEE Symposium on Computational Intelligence and Games (CIG)

- International Joint Conference on Neural Networks (IJCNN)

- International Multi-Conference on Computing in the Global Information Technology
- International Symposium on Imitation in Animals and Artifacts
- New Frontiers in Human-Robot Interaction Symposium

Panels:

- National Science Foundation, NSF Robotics Review Panel
- National Science Foundation, Collaborative Research Panel
- National Science Foundation, Robust Intelligence
- National Science Foundation, Panel on Integrative Graduate Education and Research Traineeship
- NASA, NSTRF Panel

JUDGING

- Friendly Robotics competition at the Boys and Girls Club of Hollywood, June 9, 2000.

SCIENTIFIC COMMITTEES

- Co-chair, the IEEE RAS on Human-Robot Interaction.

UNIVERSITY COMMITTEES

University

- Member, University Courses and Curriculum Committee, Fall 2009 – Spring 2011

College

- Member, COEN Undergraduate Curriculum Committee, 2004 – 2011, 2017 – present
- Chair, COEN Undergraduate Curriculum Committee, Fall 2009 – 2011
- Member, College Personnel Committee, 2012 – 2014, 2022 – present.
- Member, Curriculum Review and Globally Competitive Engineering Education, 2012 – 2013.

Department

- Chair, CSE Undergraduate Curriculum Committee, 2008 – 2011, 2017 – present
- Chair, CSE Curriculum Review Committee, 2022 – present
- Member, CSE Differential Fees Committee, 2014 – present
- Member, Space Committee, 2015 – 2017
- Chair, Strategic Plan Committee, 2015 – 2017

- Member, Administrative Search Committee, 2012, 2015 – 2017
- Chair, Faculty Evaluation Committee, 2015 – 2017
- Member, Undergraduate Curriculum Committee, 2015 – 2017
- Chair, Faculty Search Committee, 2014 – 2015, 2019 – 2020, 2020 – 2021.
- Chair, CSE Faculty Search Committee, 2013 – 2014, 2019 – 2021
- Chair, CSE Colloquium Committee, 2012 – 2013
- Member, CSE Lecturer Search Committee, 2012 – 2013
- Representative of the CSE Department for the Common Course Numbering Committee
- Member, CSE Student Affairs Committee, 2008 – 2009
- Member, CSE Faculty Evaluation Committee, 2007 – 2009, 2012-2014
- Member, CSE Undergraduate Curriculum Committee 2003 – 2008
- Member, CSE Equipment and Facilities Committee, 2004 – 2005
- Member, CSE Faculty Search Committee, 2006

OTHER ACTIVITIES

- NAASIC Media Showcase. (2014).
- Nevada Manufacturing Day. (2014).
- Advisor, Advised CSE student for Mobile Engineering Lab presentations. (2013 - Present).
- Representative for the Department of Computer Science and Engineering, tours and lab demonstrations, Nevada Bound. (2013 - Present).
- Live demonstrations and interviews for media event, KTVN Channel 2 and KOLO TV Channel 8. (2015).
- Representative for CSE, tours and lab demonstrations for Nevada Bound. (2015).
- Robot vision demonstrations for Engineer's Day, organized by the UNR College of Engineering for high school students. (2015).
- Lab presentation, Engineer's Day, Apr 2012
- Representative for the Department of Computer Science and Engineering, tours and lab demonstrations, Nevada Bound, Fall 2012
- Lab demonstration for the Engineer's Day event, April 2011
- Representative for CSE, tours and lab demonstrations for Nevada Bound, February 2011
- Lab demonstration for the Engineer's Day event, Apr 6, 2010
- Lab demonstration for the Coral Academy of Science Field Trip, Sep 27, 2010
- Lab presentation for the Best and Brightest Event, Jan 23, 2009
- Lab visit by prospective students and parents, Feb 18, 2009

- Lab demonstration for the Engineer's Day event, Apr 2, 2009

- Robot demonstration for the Engineer's Day presentations, organized by the UNR College of Engineering for high school students, Feb 14, 2008

- Lab visit by the Nevada Bound program, Oct 14, 2008

- Prospective students visit, Oct 24, 2008

- Field trip robot demonstration for Reno middle school and high-school students, Nov 21, 2008

- Lab visit by the Nevada Bound program – student presntation, Dec 5, 2008

- Robot demonstration for the Engineer's Day presentations, organized by the UNR College of Engineering for high school students, February 26, 2007.

- Presentation for 8-grade students for the Career Exploration Day of the Education Collaborative of Washoe County, April 5, 2007.

- Attended the PaymentNet Training Workshop, February 2007.

- Prepared accreditation materials for CPE 201 (Introduction to Computer Engineering) and CPE 470/670 (Autonomous Mobile Robots), Spring 2007.

- Prepared purchasing and configuration of robotic equipment for the UNR Student Technology Fee Distribution instructional grant, Summer 2007.

- Reviewed more than 50 new faculty applications, January – April 2006.

- Lab robot demonstration for high school students, Engineer's Day event (UNR College of Engineering), February 28, 2006.

- Presentation to high-school and elementary school students, Nevada K-16 Education and Engineering Program (KEEP), March 14, 2006.

- Lab robot demonstration for middle school students from the Washoe County School district, April 5, 2006.

- Lab robot demonstration, 4-H Discover Your Future conference, organized by the Nevada 4-H Office, for the University of Nevada Cooperative Extension, June 19, 2006.

- Presentation, Nevada 4-H Program, organized by the Cooperative Extension of UNR, 2006.

- Robot demonstration, IGT/Computer game engineering event, October 9, 2006.

- Robot demonstration for "Tech Thursday" event, Northern Nevada's premier technology and entrepreneurial networking event, November 16, 2006.

- Prepared 1 presentation for Nevada EPSCoR State Conference on Cognitive Information Processing, May, 2006.

- Presentation at the MESA (Math Engineering and Science Achievement) seminar for high-school and middle-school students, Spring 2005.

- Lab demonstration for Mendive Middle School Visit, March 2005.

- Presentation at the Nevada K-16 Education and Engineering Program (KEEP), March 14, 2006.

- Lab demonstration for the Engineers' Day presentations, 2005 and 2006.

- Department Technical Report System (with Sushil Louis, Mircea Nicolescu and Brian Westphal)

- Common course numbering system between UNR and UNLV (with Nancy LaTourrette and Fred Harris)
- Presentation at the STEM (science, technology, engineering and mathematics) seminar, March 2004.

PROFESSIONAL AFFILIATIONS

- IEEE (Institute of Electrical and Electronics Engineers)

MEDIA COVERAGE

- ABC Evening News (on Channel ABC 7), by Miriam Hernandez, featured videos of robot teaching by demonstration experiments, aired June 27, 2001.
- USC Engineer Magazine, "The Robot Revolution" article, Vol.1, Issue 2, 2002.
- The New York Times, "Making Robots More Like Us", by Yudhijit Bhattacharjee, March 6, 2003.
- USC Trojan Family Magazine, "Robotica", by Mark Ewing, Eric Mankin, Bob Calverley, Vol. 35, Number 2, Summer 2003.
- Nevada News, "Robotics professor wins Early Career Development Award from NSF", by Adam Carter, February 24, 2006.
- NPR Morning Edition, KUNR, Radio Interview with Daniel Erwine, March 28, 2006.
- UNR students help military with high-tech war games, Channel 4 KRNV, Reno, NV, May 26, 2006.
- Navy Game, by James Steiner, Channel 8 KOLO, Reno, NV, May 26, 2006.
- UNR Grad Students Make Navy Training Program, Channel 2, KTVN, Reno, NV, May 26, 2006.
- UNR team assists Navy in developing war simulators, Las Vegas Sun, May 26, 2006.
- UNR students creating high-tech war games, by Don Cox, Reno Gazette Journal, May 26, 2006.
- Live demonstrations and interviews for media event, KTVN Channel 2 and KOLO TV Channel 8., 2015.
- DURIP grant brings advanced research robots to University, Nevada Today, October 3, 2014.
- Robots outnumber scientists in one University lab, Nevada Today, October 12, 2015.
- Undergrad students perform hands-on robotic experiments in summer research program, Nevada Today, July 3, 2018.