
Jordan Blocher

Curriculum Vitae

February 20, 2013

PRESENT ADDRESS

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PERMANENT ADDRESS

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Education

University of Nevada, Reno
Master of Science, Mathematics, Computer Science
(in progress)
G.P.A. 3.5/4.0

University of Nevada, Reno
Bachelor of Science, Mathematics
Concentration in Discrete Operations Research
Minor in Computer Science
G.P.A. 3.3/4.0

Experience

FEMhub Inc. 2012-2013. Reno, NV.

Wrote unit tests and participated in monitoring code development. Participated in the conceptualization and creation of the classroom module at *NCLab.com*. Organizer and assistant project manager for the code repository using *Trac*. Presentations, workshops, volunteer coordination.

Learning Environments for Achievement Foundation 2012-2013. Reno, NV.

Local non-profit developing STEM education programs for local middle and high schools, the Nevada Discovery Museum. Curriculum design and analysis. 6 part-time volunteers.

www.leafoundation.net

REU Research Program Summer, 2012. San Marcos, TX.

Group Leader.

Build a custom cluster using Pelican-HPC to run permutations in order to improve the lower bound $m(d, k)$ for the generating set of vertex-transitive (Cayley) graphs. Assisted in the conference publication of an improved lower bound graphs generated by cyclic groups $m(2, k)$, generalizing to $m(d, k)$. Held the position of group leader with the responsibility of holding meetings and maintaining our code using github.

Research Assistant Summer, Fall 2011. Reno, NV.

Produced tutorial videos for higher polynomial adaptive finite element methods. Tutorials include basic use of the software package and introduction to finite element problems ranging from the scalar equations to complex field analysis. Numerical methods range from Picard's method to adaptive Runge-Kutta in both space and time.

Python directives created to improve the format of documentation in the Sphinx Search engine.

Assistant Network Administrator *Summer 2007. Reno, NV.*

Computer imaging and installation. Network maintenance, including setting up new labs and providing support and updates.

Boulder Natural Cleaning Service *2004-2007. Boulder, CO.*

Owner and manager. 4 part-time employees. Good reputation. Organic housekeeping.

Web Design and Account Management *Summer 2001. Boulder, CO.*

Alexander Dawson School, High School Senior Project.

Computer Skills

Proficient in Python and C languages including related external libraries such as numpy and BOOST. Able to use open-source libraries including OpenGL and openMPI.

Comfortably able to use UNIX operating systems with library configuration and debugging. Vim, make and cmake environment user. Familiar with scripting languages on the UNIX OS and the use of RESTful architectures.

Knowledge and proficient use of TEX environment and related packages including Tikz, Beamer, and lstlistings. Able to use Github and Subversion repositories with many developers cleanly.

Basic web programming using various tools including Javascript, Ruby, Sphinx.

I am comfortable with both structural (C or Java) type programming as well as object-oriented programming.

Coursework

Coursework 2013 (in progress)

CS 647, Computer Systems Administration

CS 657, Database Management Systems

MATH 702, Numerical Analysis and Approximation II

Coursework 2012

CS 656, Automata and Formal Languages

MATH 701, Numerical Analysis and Approximation I

MATH 420, Math Modeling

MATH 412, Functional Analysis

MATH 461, Probability Theory

Coursework 2011

CS 446, Principal Components of Operating Systems

CS 477, Analysis of Algorithms

MATH 467, Numerical Methods II

MATH 487, Deterministic Operations Research

Coursework 2010

MATH 466, Numerical Methods I

MATH 485, Graph Theory and Combinatorics

MATH 486, Game Theory

Honors and Awards

ACM Programming Contest Participant, *Spring 2011, Spring 2012*

Dean's List of Distinguished Students: *Fall 2007-Spring 2011*

Honor Role: Alexander Dawson School

AP Scholar: Alexander Dawson School

Publications

"Extremal Functions on Cayley Digraphs of Finite Cyclic Groups"

Presented at *ISPAN*. San Marcos, TX. *2012*

Authors: Jordan Blocher, Samantha Hampton, Christopher Linden

Extracurricular

Math Club Graduate Organizer

Reno, NV. Fall 2012

Learning Environments for Achievement Foundation (LEAF)

Director. Outreach coordinator. Project management. *Reno, NV. Spring, Fall 2012*

Recreational Math Conference

Presenter, Cloud-Computation and Large Graphs. *Tahoe, NV. Spring 2012*

SciPy

Attendee. *Austin, TX. Summer 2011*

Computer Science Summer Camp

Presenter and Curriculum Design. *Reno, NV. Summer 2011, 2013*

FEMTEC

Attendee, Assistant Organizer. *Tahoe, NV. Spring 2011*

Math Club

President. *Fall 2011, Spring 2012*

Women Into Computer Science (WICSE)

Treasurer. *Fall 2010, Spring 2011, Fall 2011*

SIAM Conference

Attendee. *Reno, NV. Spring 2011*