

tylerchen

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Education

University of Washington

Applied Mathematics Ph.D. program

- Relevant interests: atmospheric science, scientific computing

Seattle, WA
September 2017 - Present

Tufts University

B.S. Mathematics, B.S. Physics, Minor Studio Art

Medford, MA
August 2013 - May 2017

Research

Soft Matter Theory

Undergraduate Researcher

- Optimize Monte Carlo simulations written in C used to explore the behavior of rigid balls constrained to the surface of ellipsoids under various conditions and constraints
- Rewrote an $O(N^2)$ algorithm to an equivalent $O(N)$ algorithm. This decreased the runtime of high particle number simulations to under 3% of the original code

Medford, MA
April 2015 - January 2017

Research in Industrial Projects for Students (Hong Kong)

ePropulsion group member

- Participate in IPAM sponsored funded International Research Experience for Students (IRES) at Hong Kong University of Science and Technology
- Design and implement a communication protocol for short range underwater acoustic communication

Hong Kong
May 2016 - August 2016

Teaching

- TA, Calculus I Fall 2017
- Lab TA, Electronics Spring 2017
- Lab TA, Electronics Spring 2016
- Grader, Discrete Mathematics Spring 2016
- Grader, Calculus III Fall 2015
- Grader, Differential Equations Spring 2015
- Grader, Calculus III Fall 2014

Professional

Tisch Library Digital Design Studio

Student Supervisor

- Provide supervision to student workers
- Staff front desk at the Digital Design Studio, assist patrons with large format printing, recording, digitization equipment, and software.

Medford, MA
August 2014 - May 2017

Tufts Conference and Events Services

Reservations Manager, Registrar, Facilitator

- Oversee all housing reservations within Tufts University during the summer
- Coordinate and assist clients with logistical details relating to conferences, perform supervisory role overseeing and training new staff, schedule employee shifts (implemented a VBA/excel system to automate much of this process), prepare individualized printed materials for upcoming conferences
- Staff 24-7 welcome desk directing and assist guests as needed
- Assist with occasional academic year events

Medford, MA
May 2014 - August 2017

Relevant Skills

Programming Languages, Packages, and Software

- Proficient: Mathematica, LaTeX (TikZ/pgfplot), HTML/CSS/Javascript, python (PIL, scipy), Adobe Creative Cloud (Illustrator, Photoshop, InDesign), GIMP, Inkscape
- Developing: C/C++, MATLAB, git, slurm, Bash, Powershell, Tasker, vim

Other Skills

- I can ride a bike

Activism & Service

Tufts VOX

Medford, MA

Webmaster

September 2015 - May 2017

- Design, build, and maintain the website for the Tufts Chapter of VOX: Voices For Planned Parenthood
- Participate in on campus campaigns to promote reproductive justice

Awards & Honors

- The Audrey Butvay Gruss Science Award (Tufts) April 2017
- Phi Beta Kappa (Tufts) April 2017
- Sigma Pi Sigma Physics Honors Society (Tufts) May 2016
- The Howard Sample Prize Scholarship in Physics (Tufts) April 2015
- Dean's List (Tufts) All Semesters