

Tyler Chen

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University of Washington
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Education

University of Washington Seattle

September 2017 - Present

Ph.D. in Applied Mathematics

- interests: atmospheric science, scientific computing, computational algebra

Tufts University

August 2013 - May 2017

B.S. Summa Cum Laude in Mathematics and Physics; Minor in Studio Art

Research

Soft Matter Theory

Medford, MA

Undergraduate Researcher

April 2015 - January 2017

- 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

Research in Industrial Projects for Students (Hong Kong)

Hong Kong

ePropulsion groupmember

May 2016 - August 2016

- 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

Teaching

Tufts University Physics Department

Medford, MA

Lab Instructor

January 2016 - May 2017

- Develop and run weekly lab session for the Electronics lab course.

Tufts University Math Department

Medford, MA

Grader

September 2014 - May 2016

- Grade written homework assignments for undergraduate math courses at Tufts

Professional

Tisch Library Digital Design Studio

Medford, MA

Student Supervisor

August 2014 - May 2017

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

Tufts Conference and Events Services

Medford, MA

Reservations Manager, Registrar, Facilitator

May 2014 - August 2017

- 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

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