Tyler Chen

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University of Washington
Lewis Hall, Box 353925
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Education

University of Washington . . . . . *September 2017 - Present*
Ph.D. in Applied Mathematics (in progress)
- interests: scientific computing, computational algebra

University of Washington . . . . . *September 2017 - December 2018*
M.Sc. in Applied Mathematics

Tufts University . . . . . *August 2013 - May 2017*
B.S. Summa Cum Laude in Mathematics and Physics; Minor in Studio Art

Research

University of Washington (under Anne Greenbaum) . . . . . *March 2018 - Present*
Study the behavior of parallelized implementations of the conjugate gradient algorithm in finite precision arithmetic

Soft Matter Theory (under Tim Atherton, Chris Burke) . . . . . *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

Research in Industrial Projects for Students Hong Kong . . . . . *May 2016 - August 2016*
Design and implement a short range underwater acoustic communication protocol for the Hong Kong company ePropulsion

Teaching

TA, Probability And Statistics For Computational Finance (UW CFRM 410) . . . . . *Winter 2019*
TA, Calculus with Analytic Geometry I (UW MATH 124) . . . . . *Autumn 2018*
TA, Calculus with Analytic Geometry II (UW MATH 12) . . . . . *Winter 2018*
TA, Calculus with Analytic Geometry II (UW MATH 125) . . . . . *Autumn 2017*
Lab TA, Electronics (Tufts PHY 41) . . . . . *Spring 2017*
Lab TA, Electronics (Tufts PHY 41) . . . . . *Spring 2016*
Grader, Discrete Mathematics (Tufts MATH 61) . . . . . *Spring 2016*
Grader, Calculus III (Tufts MATH 42) . . . . . *Fall 2015*
Grader, Differential Equations (Tufts MATH 51) . . . . . *Spring 2015*
Grader, Calculus III (Tufts MATH 42) . . . . . *Fall 2014*

Graduate Coursework

Design and Analysis of Algorithms (UW CSE 521) . . . . . *Autumn 2018*
Numerical Analysis of Time Dependent Problems (UW AMATH 586) . . . . . *Spring 2018*
Inferring Structure of Complex Systems (UW AMATH 563) . . . . . *Spring 2018*
Numerical Analysis of Boundary Value Problems (UW AMATH 585) . . . . . *Winter 2018*
Advanced Stochastic Processes (UW AMATH 562) . . . . . *Winter 2018*
Networks and Combinatorial Optimization (UW AMATH 514) . . . . . *Winter 2018*

Applied Linear Algebra and Introductory Numerical Analysis (UW AMATH 584) . . . . . *Autumn 2017*
Applied Complex Analysis (UW AMATH 567) . . . . . *Autumn 2017*
Introduction to Probability and Random Processes (UW AMATH 561) . . . . . *Autumn 2017*
Algebra 2 (Tufts MATH 216) . . . . . *Spring 2017*
Algebra 1 (Tufts MATH 215) . . . . . *Fall 2016*

Relevant Skills

Programming Languages, Packages, and Software

- Proficient: Linux, python, scipy/numpy/matplotlib, Mathematica, LaTeX, TikZ/pgfplot, MATLAB, HTML/CSS/Javascript,
- Developing: tensorflow, theano, keras, CUDA, C, C++, sympy, git, slurm, Powershell, Tasker

Other Skills

- I can ride a bike

Awards & Honors

Top Scholar Fellowship (UW) . . . . . *Fall 2017*
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*

Professional

Tufts Conference and Events Services . . . . . *May 2014 - August 2017*
Reservations Manager, *Registrar*, *Facilitator* Oversee all housing reservations at Tufts University during the summer conference season; 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

Tisch Library Digital Design Studio . . . . . *August 2014 - May 2017*
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.