

Andrew Zhang

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EDUCATION

Tufts University School of Engineering

Medford, MA

Bachelor of Science in Computer Science and Mathematics, Minor in Music

Expected May 2022

GPA: 3.97

Relevant Courses: Advanced Algorithms, Computational Geometry, Programming Languages, Intro to Mobile App Dev iOS&Swift, OOP Graphical User Interface, Computational Theory, Intro to Machine Learning, Machine Structure and Language Programming, Intro to Security, Data Structures, Probability, Statistics, Real Analysis, Abstract Algebra, Linear Algebra, Discrete Mathematics

TECHNICAL SKILLS

Languages: Python, React, HTML/CSS, JavaScript, TypeScript, GraphQL, Node.js, Java, C, C++, C#, Swift, SQL, MongoDB, MATLAB

Software: VSCode, GitHub, XCode, Jupyter, Sublime, Vim, Figma, Sketch

EXPERIENCE

Juniper Networks/128Technology, Burlington, MA, *Software Engineering Intern*

May 2021-August 2021

- Collaborated with the UI engineering team of 128Technology on enhancing the first-time user experience
- Engineered multiple features in React and TypeScript, including migrating routers and viewing release notes
- Implemented and unit tested a backend script to obtain custom and default templates for router configuration
- Delivered insightful information on the associated routers of sessions and flows with GraphQL

Tufts University, Medford, MA, *Algorithms Teaching Assistant*

August 2020-Present

- Mentored students in understanding complex, mathematical concepts on algorithmic runtime
- Facilitated office hours for interpersonal guidance of course material

Beacons.ai, San Francisco, CA, *Software Engineering Intern*

May 2020-August 2020

- Conducted data analysis and full-stack development for a pre-seed stage, 4-person startup company
- Analyzed 1000+ users using SQL, Firebase, and Python to optimize users' product experience
- Published an insightful, data-driven article for users to view: <https://blog.beacons.ai/optimizing-your-links-for-clicks/>
- Implemented an interactive user map with React, Firebase, and the Airtable API

Massachusetts General Hospital, Boston, MA, *Software Engineering Intern*

July 2019-August 2019

- Engineered programs for data analysis of the human cerebral cortex at the Martinos Center for biomedical imaging under collaboration with an interdisciplinary team from Fischl Lab
- Integrated existing code from the Freesurfer open source project to compose versatile programs for such data analysis
- Built code in C++ to cluster neural streamlines based on physical location of the endpoints within the brain's structures
- Compiled violin plots in Python to directly compare information between multiple subjects

PROJECTS

Streetlancer, *Co-Founder, CDO*

June 2020-Present

- Developed a potential multi-customer platform from inspiration of one small business owner
- Programmed a full-stack application for mobile business users with two collaborators
- Integrated customers' locations with scheduling appointments and completing transactions
- Organized the UI/UX component, leading design on Figma and implementing with React

Grep for Large Word Directories

May 2019

- Assembled a hash table to store all words from a provided directory in C++
- Processed 100+ large text files of 1M+ lines each with a runtime of 20s (baseline of 10min)

ACTIVITIES

Tufts Symphony/Chamber Orchestra

Medford, MA

Violinist/Social Chair Member

September 2018-Present

Tufts Chamber Ensembles

Medford, MA

Violinist/Violist

September 2018-Present