Paul Tee

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EDUCATION

University of Connecticut - Storrs, CT
M.S. Computer Science, Ph.D. Mathematics
GPA: 3.98/4.0
University of Texas at Austin - Austin, TX
B.S. Mathematics
GPA: 3.81/4.0

SKILLS

• Languages: Python, Java, JavaScript, Typescript, Swift, HTML, CSS.

• Frameworks: React, Node.js, Express, SwiftUI, AVFoundation.

• Technologies: Git, Jest, Cypress, Postman, Figma, AWS, LaTeX.

WORK EXPERIENCE

University of Connecticut

Sept 2021 – Present

Mathematical Researcher & Personal Tutor

- Won a combined \$40,000 in research grants for geometric analysis and topology, and presented at Simons Laufer Mathematical Sciences Institute (formerly MSRI).
- Conducted 1:1 tutoring sessions with undergrad and graduate students in courses such as **algorithms**, **graph theory**, and **discrete math**. Maintained a rating of 4.8/5 over 200+ sessions.

PROJECTS

Portfolio: [https://paul-tee-portoflio.vercel.app/]

Virtual Sampling Machine | Swift, SwiftUI, AVFoundation

July 2024 – Oct 2024

[iOS Music Sampler]

- Developed a digital audio workstation allowing users to modify songs from their music library with audio effects, achieving **over 95% positive user feedback** rating for its functionality.
- Conducted research detailing over **60 pages of documentation** on signal processing libraries.
- **Identified and reported two critical bugs** in Apple's AVFoundation library; Apple's support team acknowledged and began investigating, potentially **impacting thousands of developers**.
- Designed using **neuromorphic principles**, leveraging feedback from **20+ user surveys** resulting in a **30% increase in user satisfaction** with the app's aesthetics and workflow.

Graph Visualization Project | React, Typescript, JavaScript, Python

Jan 2024 – May 2024

[Full-stack web app]

- Created an educational app that pairs algorithm pseudocode with visualization on a user-generated graph, with over 90% of users reporting enhanced understanding.
- Built a **responsive front-end** with React with Material UI to create a modern interface.
- Maintained high code quality through continuous unit testing, achieving 90% code coverage with Jest and significantly reducing bugs in production.
- Developed a **RESTful API** with Node.js and Express to handle graph data processing, executing Python scripts server-side and delivering JSON formatted results for easy integration.
- **Deployed** to **Vercel**, utilizing serverless architecture for scalability and optimized load times.