Paul Tee

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EDUCATION

University of Connecticut - Storrs, CT — May 2026
M.S. Computer Science, Ph.D. Mathematics — GPA: **3.98**/4.0

University of Texas at Austin - Austin, TX — May 2019
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, Teaching Assistant & 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).
- Coordinated calculus class sizes of 500+. Mentored students in recitation with a 95% retention rate. Scored 4.6/5 on teaching evaluations, and the average student passed with a grade of $B+$.
- Conducted one-on-one tutoring sessions with upper level 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 in-depth research, compiling 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**.
- **Prototyped UI** with Figma, leveraging feedback from **20+ user surveys** to refine the experience.
- Designed using **neuromorphic principles**, 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** of algorithmic concepts.
- Built a **responsive, user-friendly 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.

RELEVANT COURSEWORK

- Machine Learning, Cryptography, Quantum Computing, Probability, Statistics, Data Structures and Algorithms, Graph Theory, Linear Algebra, Discrete Math.