Tim Liang

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EDUCATION

University of Pennsylvania
Philadelphia, PA

Candidate for BSE in Computer Engineering; **GPA: 3.98/4.00**
August 2023 – May 2026

Relevant Coursework: Programming Languages and Techniques, Data Structures and Algorithms, Networks and Protocols, Big Data Analytics, Operating Systems, Mathematical Foundations of Computer Science

Activities and Societies: Tau Beta Pi, IEEE Sumobot, UPenn Running Club

University of Wisconsin–Madison
Madison, WI

Freshman in Computer Engineering; **GPA: 4.00/4.00**
August 2022 – May 2023

SKILLS AND INTERESTS

Skills: Java, C, C++, Python, SQL, JavaScript, HTML, CSS, Spring Boot, Quarkus, Flask, Node.js, React, Angular, MongoDB, AWS, GCP, Terraform, Maven, Git/GitHub, Linux/Unix, REST APIs, Kubernetes, Docker, CI/CD, Agile
Interests: Running, Soccer, Hiking, Nonfiction & Sci-Fi books

EXPERIENCE

Platform Engineering Intern
New York, NY

Bilt Rewards
June 2025 – July 2025

- Implemented Quarkus microservice to automate feature flag cleanups, saving dozens of monthly engineering hours.
- Optimized business-critical search endpoints to support multi-value query parameters, reducing database load.
- Extended edge service to multiregional deployment using Terraform and Google Cloud Deploy pipelines, reducing latency and enhancing resilience.

Software Engineer
Philadelphia, PA

Keep.id
October 2024 – Present

- Developing React and Tailwind CSS web interfaces to streamline the government ID application process.
- Implementing Google OAuth2 authentication with CSRF and PKCE protections, reducing user login friction.
- Attending face-to-face sessions to assist individuals in applying for ID services using Keep.id.

Teaching Assistant in ESE 3700 (Circuit-Level Modeling)
Philadelphia, PA

Electrical & Systems Engineering Department, University of Pennsylvania
January 2025 – May 2025

- Guided students through MOS circuit design, analysis, and simulation in office hours and exam review sessions.
- Supported lab sessions by answering student questions and facilitating the use of oscilloscopes and lab equipment.
- Graded homeworks, exams, and projects, providing constructive feedback to reinforce course concepts.

Undergraduate Researcher
Madison, WI

Laboratory for Optical and Computation Instrumentation, UW–Madison
January 2023 – January 2024

- Implemented a preprocessing module supporting **150+** standardized image formats for collagen fiber analysis.
- Developed a MATLAB interface to quantify cell wound boundaries in microscopy images, using edge detection to track boundaries over time and generate visuals for studying cell wound-healing dynamics.
- Held weekly meetings with researchers to gather feedback and refine features.

PROJECTS

Trip Planner | *GitHub*
March 2025

- Designed and implemented a fullstack web application for planning and geographically visualizing trips using React on the frontend and Spring Boot and MongoDB on the backend.
- Secured user data and logins using Google OAuth2 cookie validation and CSRF tokens, enabling increased security measures such as 2FA.
- Leveraged the Google Maps Javascript API and Places API to render maps and retrieve data about locations.

HONORS & AWARDS

Fall 2022 and Spring 2023 UW–Madison Dean's List, AP Scholar with Distinction, National Speech and Debate Association Member of Special Distinction