

Tim Liang

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EDUCATION

University of Pennsylvania

Philadelphia, PA

Candidate for BSE in Computer Engineering; GPA: 4.00/4.00

August 2023 – May 2026

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

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

University of Wisconsin–Madison

Madison, WI

Freshman in Computer Engineering; GPA: 4.00/4.00

August 2022 – May 2023

SKILLS AND INTERESTS

Skills: Java, Python, JavaScript, TypeScript, HTML, CSS, React, Tailwind CSS, SQL/MySQL, MongoDB, Spring Boot, Node.js, Next.js, Flask, AWS, Docker, Git, GitHub, JUnit, Maven, REST APIs, Object-Oriented Design, Agile

Interests: Running, Soccer, Hiking, Nonfiction & Sci-Fi books

EXPERIENCE

Volunteer Software Engineer

Philadelphia, PA

Keep.id

October 2024 – Present

- Developing React and Tailwind CSS web interfaces to streamline the government ID application process for people experiencing homelessness.
- Collaboratively discussing and implementing features by participating in weekly meetings with the Keep.id team.
- Attending face-to-face sessions to assist homeless 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 – Present

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

Undergraduate Researcher

Madison, WI

Laboratory for Optical and Computational Instrumentation

January 2023 – January 2024

- Developed a preprocessing module to render customizable scale bars and apply colormaps on **150+** standardized image formats for collagen fiber quantification.
- 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.

UW Madison Office of Cybersecurity

Madison, WI

Summer Intern

June 2023 – August 2023

- Curated **over 20** technical articles detailing how to use internal tools and databases within the UW system, enabling cybersecurity analysts to effectively identify anomalies.
- Organized all documentation into an Excel spreadsheet, allowing analysts to quickly locate relevant documents.
- Scheduled weekly check-in meetings with analysts to receive documentation feedback.

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 2FA measures.
- 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