JEFFREY TSENG

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Purdue University

PROFESSIONAL SUMMARY

First-year Computer Science and Mathematics student at Purdue with research experience in radar imaging, bioinformatics, and autonomous systems seeking a 2026 software engineering internship.

EDUCATION

Purdue University, West Lafayette, IN   Graduation: May 2029
Bachelor of Science in Computer Science and Mathematics   GPA: 4.0/4.0
Relevant Classes: CS390: Web Applications Programming, CS193: Computer Science Tools, CS180: Problem Solving & Object-Oriented Programming, MA261: Multivariable Calculus

RELEVANT EXPERIENCE

MIT Beaver Works   Cambridge, MA
Student   July 2024 – August 2024
- Developed Synthetic Aperture Radar (SAR) applications in collaboration with MIT Lincoln Labs and the Department of Defense to identify foreign objects through foliage
- Developed radar imaging back-projection algorithms in Python and C++ using NumPy, SciPy, and Matlab to process radar data and generate images, processing radar data enabling high-resolution images of 2.6 in. soda cans across 10 by 10 meters
- Built an F550 Hexacopter, with a PulsOn 440 radar with a Raspberry Pi via socket programming for real-time data transmission

Idiopathic Pulmonary Fibrosis Research   Stanford University, CA
Researcher   June 2023 – October 2023
- Performed bulk and single-cell RNA sequencing after extensive training in R, applying data science to biological research
- Conducted wet lab experiments on human lung fibroblasts, focusing on Idiopathic Pulmonary Fibrosis and the effect of pirfenidone on serum-stimulated human lung fibroblasts
- Gained hands-on experience in DNA/RNA isolation, PCR, and ELISA, developing a strong foundation in molecular biology
- Collaborated with Stanford researchers to explore biological findings and contribute to ongoing research on pulmonary diseases

PERSONAL PROJECTS

Personal Website
- Architected and deployed a dynamic, full-stack personal portfolio website to showcase skills and professional experience
- Engineered the frontend with React and TypeScript, creating a responsive, mobile-first user interface with modern design and a seamless user experience
- Developed a robust backend using Node.js to handle API requests and serve project data, ensuring efficient performance
- Implemented a clean, component-based architecture to enhance code maintainability, reusability, and future scalability
- Designed and built site from the ground up, from initial concept and design to final deployment

LEADERSHIP AND EXTRACURRICULARS

604 Robotics   San Jose, CA
Member   September 2022 – Present
- Placed 5th globally, playing a pivotal role in selecting alliance partners, including at the FIRST FRC World Championships
- Collaborated on data-driven decision making, refining competition data by examining specific statistics of teams throughout each of their matches to identify trends in strategy and compatibility
- Analyzed and scouted hundreds of matches during tournaments, parsing data to optimize alliance partner selection

Leland High School Student Body President   San Jose, CA
School President   September 2021– May 2025
- Allocated $170,000+ across 68 events, sports, school store, and leadership, ensuring a smooth school year with suitable events
- Represented the student body, working with district superintendents and school administration, attending school district meetings to voice concerns and enact policies

TECHNICAL SKILLS

Languages: Python, Java, HTML, CSS, C++, C, TypeScript, JavaScript
Libraries and Tools: NumPy, SciPy, Matlab, Gazebo, ROS, Node, React, Tailwind

References Available Upon Request