William Lim

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EDUCATION

California State University, Fullerton **May 2026**

B.S. in Computer Science, B.A. in Studio Art

Relevant Coursework: Data Structures and Algorithms, Algorithm Engineering, Software Engineering, Software and Computer Architecture, Compilers, Python, Assembly, Web Front-End Engineering, Web Back-End Engineering, Cybersecurity, File Structures and Database Systems, Calculus 3, Statistics, Artificial Intelligence

TECHNICAL SKILLS

Languages: Python, C, C++, Java, C#, Intel x86 and RISC-V assembly, Typescript, Javascript, HTML/CSS, SQL, R, Prolog, PHP

Frameworks/Tools: React, Node.js, Prisma, FastAPI, Flask, Docker, GitHub Actions, PyTorch, NumPy, OpenCV (Course Certification), Linux, Figma, OpenGL, Vulkan

EXPERIENCE

Web Designer, *Ride With Care Ambulette Transportation* **Aug. 2024 – Jan. 2025**

Web Designer, *ExecPathfinders LLC* **July 2023 – Oct. 2024**

Software Engineer Intern, *Garrett Integrated Automotive Corp. (GIAC)* **Jan. 2024 - Jan. 2024**

- Developed proprietary software for querying ISAM databases, heightening data retrieval efficiency.

June 2022 - Aug. 2022

- Developed REST API for product data queries. Developed internal data portal for assisting customer support and a reactive embed for business partners' websites utilizing the REST API.

PROJECTS | *Code can be found on github.*

RISC-V CPU Emulator **Nov. 2025**

- Emulates a thorough subset of RV32I and RV32F bit-level connections and gate-level implementations. Includes proprietary RISC-V assembler.

A-Star GPS Road Navigation System | *Navigates Open Street Map Data Using A** **Dec. 2025**

- This GPS navigation software used A* to navigate optimally to and from different longitude and latitude coordinates along OpenStreetMap data in around 65% of tests performed. The navigator follows traffic laws and considers different types of road junctions, signs, and number of lanes among other factors.

Tritium Engine | *Vulkan And OpenGL Powered Rendering Engine* **Nov. 2025 - Present**

- Includes Vulkan render backend and engine architecture support for other render backends. Showcases proficiency in Vulkan and complex and high performance software design skills.

Python to Intel X86 Assembly Compiler and Bindings **Dec. 2024 - Sep. 2025**

- Compiles and assembles Python source code into statically typed x86 Assembly via the Python AST and proprietary x86 Assembly bindings.

OpenCV/AI Demo | *Emotion Recognition, Face Tracking, and Eye Tracking Web Demo* **Jan. 2025 - Feb. 2025**

- A demo showcasing my own convolutional neural network for face-image emotion recognition, face landmark tracking via MediaPipe, and eye tracking using image processing techniques with OpenCV.

LEADERSHIP EXPERIENCE

Board Member, Association for Computing Machinery (ACM) Algorithms **Aug. 2025 – Present**

Board Member, Association for Computing Machinery Game Development **Aug. 2025 - Present**

California State University, Fullerton

- Prepared and presented lectures to computer science students on basic to advanced CS concepts.
- Organized, led, and performed successful outreach attracting new members to ACM, the largest CSUF student organization with over 2500 members.