

Kevin Davidson

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EDUCATION

Santa Monica College | Santa Monica, CA

June 2026

AS-T in Mathematics, Pursuing transfer to a 4-year institution for Applied Mathematics / GPA: 3.83/4.0

- **Courses:** Data Structures in C++, C++ Programming, C Programming, Java Programming, Calculus 1-3, Differential Equations, Linear Algebra
- **Honors:** Dean's List

TECHNICAL SKILLS

Languages (ordered by proficiency): C++, Python, C, Java, HTML

Tools and Frameworks: Hugging Face, Git/Github, Linux (SSH), Adobe Photoshop and Illustrator, Microsoft Excel, Microsoft Office Suite, Google Workspace, Figma, Framer, CAD

RELEVANT EXPERIENCE

Santa Monica College | Santa Monica, CA

Sep. 2025 - Dec. 2025

Supplemental Instruction Leader

- Selected to lead peer-to-peer instruction for a **100+** person Data Structures (C++) course.
- Host 2x weekly office hours to debug C++ code and teach complex topics (e.g., pointers, recursion, OOP).
- Manage an online support forum and collaborate with the professor to ensure content alignment.

Obscura Design | Los Angeles, CA

Oct. 2020 - Present

Founder and Lead Graphic Designer

- Designed the complete user interface (**UI**) wireframe and final mock-up for a B2B SaaS company's website.
- Created and delivered digital marketing assets, product packaging, and visual ads for freelance clients.
- Commissioned for **over 30** unique poster designs, managing client communication from concept to final delivery.

PROJECTS

TALOS: Computer Vision Bicycle Safety System | Personal Project

- Developed "TALOS," an open-source bicycle safety system on Raspberry Pi 5, integrating a custom YOLOv8 computer vision pipeline with a CAD-designed 4-part mounting chassis for real-time blind-spot monitoring.
- Engineered a custom dataset by implementing class merging and oversampling techniques, fine-tuning YOLOv8n to increase minority-class (motorcycle) recall by **41%** and publishing versioned models to Hugging Face.
- Orchestrated edge deployment via Python and SSH, optimizing the inference loop for low-latency performance (~**6ms**) on embedded hardware while managing iterative hardware prototyping.

Tic-Tac-Toe v2 | Personal Project

- Implemented an unbeatable AI opponent by designing a complete game tree using a vector of nodes **in C++**.
- Engineered the Minimax algorithm using recursive depth-first search to evaluate 100% of possible game states, guaranteeing a mathematically perfect strategy.

Towers of Hanoi | Personal Project

- Implemented a **recursive solution in C++** to solve the classic Towers of Hanoi puzzle.
- Created a graphic interface and prompted users to customize the puzzle.

Custom PC Builder | Personal Project

- Researched, sourced, and assembled **5** high-performance PCs from components, ensuring hardware compatibility and optimizing for performance.
- Installed and configured operating systems and drivers, troubleshooting all hardware/software conflicts.

LEADERSHIP EXPERIENCE

Future in Tech at SMC | Santa Monica, CA

Aug. 2025 - Present

Co-Vice President

- Co-manage club operations, helping organize technical workshops and industry guest speaker events.

Fresh Brothers | Beverly Hills, CA

Jun. 2023 - Nov. 2024

Team Member

- Assisted in training new employees and resolving customer issues, demonstrating leadership in a fast-paced team.