Tyler J. McClelland

480-685-7740 • tylerjmcclelland@gmail.com • tylerjmcclelland.com • www.github.com/tylermcclelland

SUMMARY

Computer Science Junior with a strong interest in high-performance systems, hardware-software integration, and AI/ML. Seeking a software engineering internship to apply my technical skills and deepen my understanding of engineering.

EDUCATION

B.S. Computer Science May 2027
Arizona State University, Tempe, AZ 3.8 GPA
Relevant Coursework: Data Structures and Algorithms, Introduction to Software Engineering, Information Assurance, Applied Linear Algebra, Calculus III, University Physics I/II

Coursework toward A.S. Computer Science August 2023 - Dec 2024
Chandler/Gilbert Community College, Chandler, AZ (transfer to Arizona State University) 3.96 GPA

TECHNICAL SKILLS

Programming Languages: C/C++, Python, Java, MATLAB, HTML, CSS, JS, bash
Core Concepts: Data Structures & Algorithms, Memory Management, Object-Oriented Design (OOP), System Architecture
Tools, Databases, and OS: Linux/Unix, Git, GitHub, Windows, MacOS, PowerShell

EXPERIENCE

Logos Robotics Lab at Arizona State University: Undergraduate Researcher January 2026 - Present

- Trained and evaluated robotic policies, including ACT, Diffusion, and Vision-Language-Action (VLA) models using PyTorch and LeRobot
- Fine-tuned vision encoders on LIBERO benchmark, establishing performance metrics for distillation research
- Configured and executed distributed training jobs on an HPC cluster by developing bash scripts for SLURM job automation to train on A100 GPUs

PROJECTS

FPGA Flight Simulator, *Class Project* Fall 2024

- Designed and implemented a flight simulator on an **Altera DE-10 Lite FPGA** using Verilog. Wrote and tested logic in Verilog to accurately simulate flight dynamics.
- Created the system architecture in **LogicWorks**, modeling flight behavior with a finite state machine
- Delivered a fully functioning design that demonstrated **hardware-software integration** for control systems

Flight Data Management System, *Class Project* Fall 2025

- **Engineered** a high-performance data management system in C++ using a **Red-Black Tree to guarantee O(log n)** execution time for flight scheduling operations (insert, delete, search).
- Optimized retrieval speeds by building a Hash Table with collision chaining, reducing **average** lookup time to **O(1)**.
- **Developed** a network routing module using Dijkstra's Algorithm and a custom Min-Priority Queue to **calculate optimal paths** between cities.

Autonomous Robot Navigation System, *Class Project* Spring 2025

- Designed the robot chassis and wrote all control logic in MATLAB, integrating **one ultrasonic**, **one color**, and **one touch** sensor to navigate maze environments
- Led a 4-person team as project manager, establishing milestones and communication cadences that delivered the final system **2 weeks ahead of schedule**
- Maintained the GitHub repository, coordinating pull requests, ensuring accurate version control, and branching to ensure **zero critical integration issues** and full traceability of changes

Awards

Dean's List - Spring 2025, Fall 2025 May 2025 – December 2025

- Awarded the Dean's List award from the Ira A. Fulton School of Engineering at ASU for each semester attended

President's Honors List - Fall 2023, Spring 2024, Fall 2024 August 2023 – August 2024

- Awarded the President’s Honors List award for each semester I attended Chandler Gilbert Community College