

Param Pathak

github.com/ParampPathak | parampathak.com | [LinkedIn](#)

EDUCATION

The University of Texas at Arlington | B.S. Computer Science | Expected May 2027

GPA: 3.83/4.0 | President's List, Dean's List, Maverick Academic Scholarship

Tarrant County College | Associate of Arts | May 2024

GPA: 3.90/4.0 | Phi Theta Kappa Honor Society, Dean's List (four semesters)

TECHNICAL SKILLS

Languages: Python, JavaScript, SQL, Bash, C, C++, C#, Java, Assembly

Backend & data: Flask, REST APIs, PostgreSQL, MongoDB, ETL pipelines, data validation

Infrastructure: AWS, Docker, Proxmox VE, Linux, Ubuntu Server, Nginx, Ansible, SSH, systemd

Tools & concepts: Grafana, Prometheus, Git/GitLab, Jira, Unity, Arduino, Agile/Scrum, multithreading, embedded systems, object-oriented programming, UML, virtualization

EXPERIENCE

Mouser Electronics | Systems Engineering Intern | June - August 2026

- Engineered Python and Bash ETL automation for shipment data, with incremental parsing and handling of late-arriving records.
- Automated geolocation enrichment with cached lookups and coordinate validation; upserted records into MongoDB and PostgreSQL.
- Developed SQL reporting views and MongoDB aggregation pipelines; built Grafana dashboards with Apache ECharts.
- Deployed database Docker services on Linux and automated execution with systemd, locking, and rotating logs.
- Created Pytest and SQL data-quality checks; authored deployment and operational documentation.

SELECTED PROJECTS

Proxmox Homelab | Proxmox, Docker, Ansible, Nginx, Prometheus, Grafana | August 2026

- Maintain a self-hosted virtualization environment with containerized services, repeatable provisioning, reverse proxying, and infrastructure and availability monitoring.

Air Traffic Control Scheduler | C, Multithreading, Synchronization | November 2025

- Built a runway scheduler coordinating up to 1,000 aircraft with mutexes and condition variables; modeled emergency priority, fairness, capacity, and controller breaks.

MeowVerse Mobile Game | C#, Unity, UML | November 2025

- Led a four-person team building a 2D cat simulation. Authored requirements and UML; implemented minigames, dynamic AI, random events, and persistent state.

pH Measurement System | C++, Arduino, Embedded Systems | December 2025

- Built a team prototype integrating pH sensing and calibration, LCD measurements, relay channels, and fluid-flow controls.