

# SAMIUR RAHMAN

[srahman96@gatech.edu](mailto:srahman96@gatech.edu) [linkedin/Samiur-Rahman](https://www.linkedin.com/in/Samiur-Rahman) [github.com/Samiurr10](https://github.com/Samiurr10) [vercel/Samiur-Rahman](https://vercel.com/Samiur-Rahman)

## EDUCATION

---

**Georgia Institute of Technology** Jan 2023 – Dec 2026  
*Bachelors of Science in Computer Engineering* Atlanta, GA

**GPA:** 3.7/4.0, Dean's List

**Concentration:** Distributed System & Software Design and Computing Hardware & Emerging Architecture

**Relevant Coursework:** Object Oriented Programming; Data Structures; Algorithms; Embedded Systems; Adv Computer Architecture; GPU Programming; Computer Networking; Operating Systems

## EXPERIENCE

---

**Figure** Jan 2026 – May 2026  
*Embedded Automation Intern* San Jose, CA

- Scaled connectivity test infrastructure from basic speed tests to full interface validation (priority arbitration, service allowlisting, Wi-Fi stability, AP testing, mid-OTA network switching), increasing automated coverage by 40%
- Debugged and fixed 25+ OTA bugs, authored regression tests for each, and grew the OTA automated test suite from 0 to full scenario coverage, reducing OTA-related failures by 99%
- Built a Slack Jira bot that auto-creates tickets from threads, attaches logs, and triggers an agent to open a fix PR
- Deployed a nightly HIL summary bot that surfaces root causes, links relevant merged PRs, and tags owners
- Improved test results website by adding an interactive AI agent and optimized DB read/write latency by 40%

**Tesla** Aug 2025 - Dec 2025  
*Software Engineering Intern* Palo Alto, CA

- Migrated 1000+ SIL tests for next-gen Tesla Model Y firmware, uncovering and resolving 10+ critical bugs
- Ensured  $\pm 2\%$  motor RPM accuracy and safety cut-off behavior by validating hall-sensor feedback
- Expanded firmware validation coverage across 500+ automated HIL tests by bringing up CAN Motor Monitor signal integration for real-time motor performance monitoring
- Strengthened thermal safety validation by authoring SIL tests for cabin temperature control across vehicle states (running, parked, powered-off), verifying correct Dog Mode and Child Mode behavior

**Tektronix** May 2025 – Aug 2025  
*Performance Applications Engineering Intern* Beaverton, OR

- Developed an AI-driven agent to translate natural language measurement goals into automated test workflows, integrating SCPI/VISA commands for Tektronix devices, reducing manual setup time by 60%
- Built standalone MCP servers with JSON-RPC 2.0 compliance, UDP discovery, and SCPI/VISA integration, enabling seamless multi-instrument control and improving test throughput by 35%
- Delivered demos and training on developed AI tools for application engineer, increasing productivity by 50%

**Citadel Technologies** May 2024 – Aug 2024  
*Software Development Intern* Atlanta, GA

- Developed a Flutter mobile app for remote garage control using WebSocket APIs, achieving 95% user satisfaction
- Implemented multi-garage and home view support using Provider and RESTful APIs, reducing setup time by 40%
- Integrated IoT sensors and Firebase Cloud Messaging for real-time alerts, increasing response times by 30%
- Optimized app performance and network payload, reducing load times by 35% and boosting user retention by 20%

## PROJECTS

---

**Cache Simulator** | Multi-level CPU cache simulator with configurable L1, Victim, and L2 cache

**GPU Image Filter Engine** | Parallelized image filtering pipeline applying convolution kernels across 10,000+ threads

**Memory Allocator** | Custom malloc implementation using slab and buddy allocator strategies

**Binary Arcade Game** | Retro arcade game using I2C, UART, SPI protocols and a custom FlashIAP library

## SKILLS

---

**Languages:** C, C++, Objective-C, Swift, Python, Rust, CUDA, JavaScript, Assembly, SQL

**Software Tools:** Git, GDB, LLDB, Docker, Linux/Unix, , OpenMP, OpenGL, CMake, Bootloader, RTOS

**Dev Platforms:** Claude-Code, Codex, Xcode, Qwen3.5, Model Context Protocol (MCP), AWS (EC2, S3), Azure