

Armaan Sharma

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EDUCATION

Santa Clara University | Santa Clara, CA

Expected Graduation - June 2026

B.S. in Computer Science – Software Emphasis, Minor in Mathematics | GPA: 3.44/4.0

Relevant Courses: Embedded Systems, Database Systems, Data Structures & Algorithms, Operating Systems, Computer Networks

Lakeland University | Plymouth, WI

August 2022 – December 2024

- Dean's List
- Presidential Scholarship

TECHNICAL SKILLS

Programming Languages: C++, C, Python, JavaScript, Dart, Java, SQL

Frameworks and Libraries: Flutter, React, Django, HTML, CSS

Databases: SQLite, Firebase, PostgreSQL

Tools & Environments: Git, Linux, Docker

WORK EXPERIENCE

Founder & Software Engineer – Locked In

December 2025 - Present

- Architected and developed a cross-platform mobile application using Flutter, enabling users to track workouts, nutrition, and social activity in a unified platform.
- Designed and implemented workout and diet tracking systems, including custom workout creation, live session recording, and macro-based nutrition tracking (calories, protein, carbs, fat).
- Integrated external REST APIs to enable real-time food lookup and dynamic nutritional data retrieval.
- Built social features including post creation, likes, and comments, supporting user engagement and interaction.
- Implemented secure user authentication and session management using Firebase Authentication and Provider-based state management.
- Migrated application from a fully local SQLite-based architecture to a cloud-backed Firebase system, improving scalability, data synchronization, and multi-device support.

PROJECTS

Distributed Systems and Networking Projects

March 2026

- Built concurrent client-server file transfer systems over TCP, handling multiple clients using POSIX threads (pthreads).
- Implemented a reliable data transfer protocol over UDP, including sequence numbers, checksums, acknowledgments, and retransmission logic under simulated packet loss.
- Designed and tested networked applications to measure round-trip time (RTT) and analyze performance of system calls vs. standard library functions.
- Implemented a link-state routing algorithm using Dijkstra's algorithm to simulate network path computation.
- Developed multi-threaded programs to perform concurrent file operations and improve throughput.

Embedded Systems Programming

December 2025

- Developed low-level programs in ARM64 assembly and C, targeting STM32 microcontrollers and interfacing directly with hardware components.
- Implemented C functions in assembly, managing stack frames, parameter passing, and register allocation for performance optimization.
- Optimized computational tasks by replacing high-level C implementations with assembly, improving execution efficiency, and reducing overhead.
- Built embedded applications including numerical conversions, linear interpolation, and puzzle-solving algorithms at the hardware level.
- Gained hands-on experience with memory management, instruction-level execution, and debugging in constrained embedded environments.