

# Ari Manjikian

US Permanent Resident | 404-654-0033 | [amanjikian3@gatech.edu](mailto:amanjikian3@gatech.edu) | [LinkedIn](#) | [Github](#)

## EDUCATION

### Georgia Institute of Technology

Bachelor of Science in Electrical Engineering and Applied Physics- 4.0 GPA

Atlanta, GA

May 2028

## TECHNICAL SKILLS

**Languages:** JavaScript (ES6+), TypeScript, Python, Dart/Flutter, C++, HTML/CSS

**Databases:** PostgreSQL, MongoDB, Firebase Realtime Database, MySQL, Prisma, Supabase

**Hardware Design:** Verilog, VHDL, ASIC Design, VLSI technology, Static Timing Analysis

**Developer Tools:** Git, Docker, Google Cloud Platform, AWS(S3, EC2), MATLAB

**Specialized Skills:** RESTful API development, Machine Learning (NLP, Pytorch), Blockchain (Solidity), SEO

## EXPERIENCE

### Full-Stack Engineer

ZCreations Jewelry LLC

Oct 2024 – Present

Venice, FL

- Achieved over 2,600 monthly impressions through targeted SEO strategies, boosting local search visibility and engagement, resulting in over 700 phone calls, 1200 website visits, 470 requests for directions.
- Designed and achieved a business management system that included invoice tracking, inventory and customer record management, email workflows and estimate generation, increasing customer satisfaction by 43%.
- Built and deployed the entire platform using modern technologies, including Python, React, TypeScript, JavaScript, AWS S3, and PostgreSQL, to securely manage over 500 inventory items and over 250 customer records.

### Python Developer

Restaurant Chain

June 2024 – Sep 2024

Remote

- Constructed an advertisement hardware system to display synchronized media content on LCD screens, utilizing Raspberry Pi, Python, Docker and MQTT protocol for real-time updates over 20 devices.
- Engineered a dashboard enabling media uploads and device management with AWS S3 and PostgreSQL.
- Architected the hardware and software system to support centralized control of devices.

### Software Developer Intern

Armenian Relief and Development Association

Jun 2023 – Sep 2023

Pasadena, CA

- Developed a donation-tracking dashboard for donors to monitor annual contributions exceeding \$1,000,000, implementing user authentication, SQL database, and email notifications to handle over 1,100 donations.
- Communicated and collaborated with design professionals, focusing on user experience and interface.

## PROJECTS

### Digital Design Engineer @ SiliconJackets | SystemVerilog, SimVision, Innovus, Verdi

Aug 2025 – Nov 2025

- Designed and implemented a single-cycle RISC-V core using two SRAM macros with full RV32I support, including custom Control and Status Register (CSR) logic for Tapeout.
- Built and maintained a SystemVerilog test suite and validated functionality with SimVision and Verdi, achieving 99.8% code coverage and resolving critical decode, memory, and control-path edge cases.
- Collaborated with the physical design team to refine floorplanning decisions and verify clocking and reset strategies prior to final layout.

### RISC-V Single-Cycle CPU Core | SystemVerilog, cocotb, Verilator

Nov 2025

- Designed and implemented a single-cycle RISC-V processor core supporting the full RV32I instruction set, including ALU ops, branching, and memory access.
- Built a cocotb verification framework and ran comprehensive instruction-level testing in Verilator, reaching 99.4% code coverage and uncovering multiple decode and control-logic edge cases.

### SaaS — Sentence Clustering | Python, JavaScript, NLP, OpenAI, TensorFlow

Mar 2024 – May 2024

- Developed sentence-clustering pipeline using OpenAI embeddings and the TensorFlow Universal Sentence Encoder, achieving 100% cost savings by transitioning fully to open-source models.
- Clustered 5,000+ sentences using algorithms such as K-means, DBSCAN, and HAC, improving accuracy by 15% via elbow-method tuning and iterative experimentation.
- Integrated clustering functionality into a React SaaS platform that helps content creators organize and structure Q&A sessions.