# Ari Manjikian

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#### EDUCATION

#### Georgia Institute of Technology

Atlanta, GA

Bachelor of Science in Applied Physics - 4.0 GPA

May 2028

#### TECHNICAL SKILLS

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

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

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

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

## EXPERIENCE

### Full-Stack Engineer

Oct 2024 - Present

 $ZCreations\ Jewelry\ LLC$ 

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

June 2024 – Sep 2024

Restaurant Chain

Remote

- Constructed an advertisement hardware system to display synchronized media content on LCD screens, utilizing
- 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.

Raspberry Pi, Python, Docker and MQTT protocol for real-time updates over 20 devices.

## Software Developer Intern

Jun 2023 - Sep 2023

Armenian Relief and Development Association

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

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

Mar 2025 – Jun 2025

- Designed and implemented a fully functional RISC-V single-cycle processor core at the RTL level using SystemVerilog HDL.
- Built a verification framework with cocotb and simulated the design with Verilator to validate instruction execution and overall correctness.

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

March 2024 - May 2024

- Developed JavaScript program for sentence embedding and clustering utilizing OpenAI API and TensorFlow Universal Sentence Encoder, achieving 100% cost savings by leveraging open-source models.
- Utilized clustering algorithms to group over 5,000 sentences based on contextual similarity.
- Improved accuracy by 15% through problem-solving by applying the elbow method on the WCSS plot and experimenting with different clustering algorithms (K-means, DBSCAN, HAC).
- Integrated clustering functionality in a React SaaS platform, helping content creators organize Q&A sessions.