

Shiv Desai

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EDUCATION

Emory University, Atlanta, Georgia

Bachelor of Science in Computer Science/Mathematics (4.00/4.00), Fall 2023 Dean's List

May 2025

GPA: 3.92/4.00

Relevant Coursework: Calc 1-2, Data Structures, Algorithms, Linear Algebra, Computer Architecture, Systems Programming, Discrete Mathematics, Machine Learning, Database Systems

PROGRAMMING SKILLS

Programming Languages (Ranked in Proficiency): Go, Python, Java, JavaScript, SQL, C, Rust

Tools and Libraries: GitHub/Git, Linux, React, Solana SPL, Pandas, NumPy, AWS, Snowflake

EXPERIENCE

Data Architecture Intern at Fiserv, Inc., Berkley Heights, NJ

Jun 2023 – Aug 2023

- Oversaw end-to-end **ETL** pipeline, transforming **AWS** usage costs data, normalized with **StreamSets**, for **Snowflake** consumption and analysis. Concluded that recent integration of AI products **increased** AWS rent costs by **11%**.
- Contributed to the database schema architecture necessary for **Gemfire** to **MySQL** database migration project. Reduced operational costs annually through eliminating licensing fees and optimizing hardware utilization
- Streamlined migration database management processes, reducing maintenance overhead by over **20%** and accelerated new feature development through the adoption of widely used **SQL** standards in MySQL
- Demonstrated commitment to skill enhancement by completing **AWS** and **Snowflake** courses, bolstering architectural proficiency, and contributing to improved project results

Business Analyst Intern at Fiserv, Inc., Berkley Heights, NJ

Jan 2022 – Aug 2022

- Conducted research on the adoption of **blockchain** technology in cross-border payments among competitors, revealed a **55%** increase in transaction processing speeds, and over **20%** increase in Fiserv's customer base through global adoption
- Presented research and analysis of a hybrid **cloud migration** off the current on-prem infrastructure.
- Final findings suggested a cloud migration will lead to substantial cost savings, exceeding **\$1.2 billion dollars** over a span of 10 years, by selling data warehouse real estate, scalability, and reduced infrastructure and maintenance expenses
- Collaborated with product leads to conduct comprehensive **data governance** analyses of new product pitches, ensuring their alignment with key regulations such as GLBA, GDPR, NPI, FRCA, CCPA and KYC

NOTABLE PROGRAMMING PROJECTS

Marginfi Liquidation Bot (Go)

Dec 2023 – Present

- Developed a **liquidation** bot on the Solana Marginfi lending and borrowing protocol to swiftly identify defaulted loans, execute liquidations, and rebalance the liquidator accounts. Collect a **2.5% profit** of the liquidated collateral per liquidation
- Reverse engineered the Marginfi SDK in **TypeScript** to **Go** through extensive deserialization, **go routines** to concurrently fetch real-time data, context and mutexes to prevent race conditions, and stored data in **cache** stores for efficient retrieval

RSS Feed Aggregator 🔄

Mar 2024

- Developed a robust RSS-Feed-Aggregator using **Go**, leveraging **PostgreSQL** for efficient data storage and query handling, and integrated **goose** for database schema migrations and **sqlc** for converting SQL queries into type-safe Go code
- Implemented a **RESTful API** using **go-chi** for server management, enabling user interactions through HTTP GET, PUT, and DELETE requests. Utilized a scraper worker for real-time RSS feed updates which are continuously stored in the database

Personal Portfolio 🔄

Feb 2024

- Designed a personal portfolio website using **HTML**, **CSS**, and **JavaScript** to showcase a visually appealing online presence
- Implemented JavaScript and CSS techniques for layout and design, highlighting personal projects and programming skills

Weather App 🔄

Aug 2023

- Leveraged React.js to build a user interface for a weather application, ensuring a seamless and interactive user experience
- Utilized Geo and Weather **REST APIs** to fetch the input location and accurate weather forecast for the search parameter

COMMUNITY ENGAGEMENT AND LEADERSHIP EXPERIENCE

Residential Advisor at Residential Life and Housing Operations, Atlanta, GA

Aug 2023 – Present

- Assume on-call duty responsibilities during nights, weekends, breaks, and hall opening/closing periods to ensure resident health safety and fire safety standards are met throughout campus and in residential halls
- Served as a role model and consultant for residents, demonstrating honor, humility, and helpfulness when in need
- Organized and implemented meaningful educational, co-curricular, and social initiatives aligned to support residents' holistic development as a member of Emory's community and as a student

Director of Programming Committee at Trockman Microfinance Initiative, Indiana University

Aug 2021 – May 2022

- Connected Kelley students directly to successful Kelley alumni by coordinating alumni speaker panels
- Won the semestrial Kiva's Case Competition twice by pitching the optimal levels of default, risk, and profitability rates of the Kiva loan to the club executive board and club members

ADDITIONAL SKILLS AND INTERESTS

Languages: Basic in **Spanish**; Basic in **Hindi**; Basic in **Gujrati**

Interests: Golf, Premier League, NFL, Weightlifting, Solana Development, Low-level Programming, Crypto Investing/Airdrops