

Shaun Jacob

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EDUCATION

The University of Texas at Arlington

May 2026

Bachelor of Science (Honors) in Computer Engineering

GPA 3.9/4.0

- Summa Cum Laude, Sabre Holdings Outstanding Professional CpE Student Award, IEEE Eta Kappa Nu (HKN) Scholar, Maverick Academic Scholar, Dean's List, inSTEM Scholar, Leadership Honors Program
- Relevant Coursework:** Operating Systems, Algorithms & Data Structures, Computer Organization & Assembly, Quantitative Computer Architecture, IoT & Networking, Cybersecurity Systems Engineering, Computational Methods

EXPERIENCE

Software Engineering Intern

October 2025 – April 2026

Zephyr Rad Consulting LLC

Dallas, TX

- Built patient onboarding, diagnostic reporting, and imaging-study tracking modules for a multi-tenant RIS using React, Redux, Node.js, Express, and MySQL, supporting role-separated workflows.
- Developed REST APIs with tenant-aware role-based access controls, securing patient and imaging records, and wrote API documentation and onboarding guides adopted by the engineering team.
- Reduced unnecessary re-renders and restructured shared Redux state to improve UI responsiveness by 40% across patient, reporting, and imaging dashboard modules.
- Optimized MySQL schemas and queries for patient, study, and report entities, reducing data retrieval latency across high-traffic dashboard views.

Software Engineering Intern

June 2025 – August 2025

Citibank

Irving, TX

- Built an Angular task-management dashboard for cross-team workflow tracking, surfacing blockers, task ownership, and delivery status for engineering teams.
- Introduced Storybook-based component isolation testing for Angular UI components, enabling independent testing and debugging without running the full application.
- Resolved suppressed ESLint warnings across legacy codebases, catching unused state paths, unsafe optional access, and inconsistent component props before production release.
- Presented AI-assisted development workflows using GitHub Copilot and Gemini to 70+ engineers, helping teams evaluate and adopt practical AI tooling for enterprise software delivery.

Software Engineering Intern

June 2024 – July 2024

ALEC Engineering

Dubai

- Built and deployed a full-stack guestbook platform using React, Express.js, and MySQL, with JWT authentication, multi-step check-in flows, admin search, and record management.
- Created reusable frontend API service modules for form submission, record retrieval, and error handling, eliminating duplicated request logic across components.

PROJECTS

Financial Market Data Replay & Analytics Engine | C++, STL, Linux, Docker, React | [GitHub](#)

July 2026

- Built a market data engine that replays trade and quote events from large CSV datasets and generates symbol-level analytics for financial data analysis.
- Implemented single-threaded and multithreaded processing modes using STL data structures to compute VWAP, trade volume, bid-ask spread, price movement, and portfolio metrics.
- Added Dockerized Linux builds, Catch2 unit tests, JSON/CSV report exports, and a React dashboard for visualizing replay metrics, benchmark results, and portfolio analytics.

Cicada AML – Blockchain AML Investigation Platform | FastAPI, React, Supabase | [GitHub](#)

April 2026

- Built a full-stack blockchain AML investigation platform enabling analysts to upload transaction CSVs, trigger a detection pipeline, and review flagged wallets and risk scores.
- Designed a graph-based detection engine using NetworkX to construct wallet transaction graphs, scoring activity across 185 heuristics and 5 ML models to produce calibrated transaction-level risk scores.
- Built FastAPI repositories for pipeline runs, suspicious transactions, and wallet clusters, and designed 26 Supabase SQL migrations with row-level security for run-scoped data isolation and SAR report export.

SmartAdvisors – Course & Professor Recommender | React, Flask, SQL | [GitHub](#)

February 2026

- Developed an academic planning application that parses student transcripts, maps completed courses to degree requirements, and surfaces ranked course and professor recommendations.
- Designed SQL schemas for professors, courses, tags, prerequisites, and student preferences, enabling filtered search across 1,000+ professor records.
- Implemented a weighted scoring engine combining professor ratings, difficulty, course tags, and student preference weights to generate explainable ranked outputs.

TECHNICAL SKILLS

Languages: C++, Python, Java, C, TypeScript, JavaScript, SQL, Bash, HTML, CSS

Frontend: React, Redux, Angular, Tailwind CSS, Bootstrap, Storybook, GSAP, Framer, Figma

Backend & ML: Node.js, Express.js, FastAPI, Flask, PyTorch, PyTorch Geometric, XGBoost, NetworkX

Tools & Platforms: Git, Unix/Linux, MySQL, Supabase, PostgreSQL, Jira, Bitbucket, ESLint, Postman

AI Tools: GitHub Copilot, Gemini, Cursor, Claude, Perplexity