Rainier Joshua Tabelon

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EDUCATION

University of Florida – Herbert Wertheim College of Engineering   **GPA: 3.98/4.0**

Bachelor of Science in Computer Science, Minor in Electrical Engineering   **Aug 2023 – May 2027**

Relevant Coursework: Data Structures & Algorithms, Operating Systems, Computer Architecture, Software Engineering, Programming Language Concepts, Full Stack IoT Development, Computer Networks, Internet Storage Systems

TECHNICAL SKILLS

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

Frameworks & Libraries: React, Redux, Node, Express, Fastify, Jest, Tailwind CSS, Socket.IO

Infra & DB: AWS (EC2, S3, RDS), Docker, Docker Compose, Linux, Nginx, PostgreSQL, MongoDB, Redis, Firebase

Tools: Git, GitHub Actions, Postman, Figma, Jira, Copilot, Codex

EXPERIENCE

Software Engineering Intern   **Oct 2025 – Present**

AKIO AI   *Gainesville, FL*

- Reduced real-time speech response latency from 4s to 2s by eliminating per-request TCP overhead with persistent WebSockets and using in-memory audio buffers with concurrent disk I/O in a Unity-to-Go voice pipeline
- Executed a zero-data-loss migration from self-hosted PostgreSQL to AWS RDS, validating full schema and data integrity and coordinating a safe cutover with rollback guarantees
- Built a React speech analytics dashboard aggregating 10K+ speech events for therapists to track client performance, improving UI responsiveness by 60% through memoization and batched updates

Backend Team Lead   **Sep 2025 – Present**

Society of Asian Scientists and Engineers (SASE)   *Gainesville, FL*

- Led backend development on a 9-member Agile team, defining sprint scope and enforcing service ownership
- Developed an alumni bank update pipeline that ingests all stored LinkedIn profiles via an MCP server, atomically updating 200+ organization-wide alumni records in a single sync

Software Engineering Intern   **May 2025 – Jun 2025**

EDU Africa   *Cape Town, South Africa*

- Built a MERN platform digitizing public-sector housing audits, replacing paper workflows across 30 municipalities
- Implemented server-side pagination and filtering over a 600K+ record dataset, preventing client overfetching
- Added Redis caching for read-heavy REST endpoints, improving scalability under concurrent access

PROJECTS

KoalaKite (Hackathon Winner: Best Use of GitHub) | *Manifest V3, Gemini API, Fastify, React, MongoDB*   **Source Code**

- Developed a parental monitoring browser extension with real-time harmful content detection using Gemini Vision AI
- Implemented client-side perceptual hashing for image deduplication, reducing redundant API calls by 60%

CoreCRM | *AWS EC2, Docker, Nginx, Jest, Express, Node, PostgreSQL, Neon, Drizzle ORM, JWT, Arcjet*   **Source Code**

- Shipped a production CRM platform with strict relational integrity, role-based access control, and API rate limiting
- Automated a CI/CD pipeline with GitHub Actions to test, build, and deploy Dockerized services to a remote VM over SSH, cutting deployment time by 60%

PicklePortal | *Python, Ultralytics YOLOv8, C++, Arduino, ESP32, Firebase RTDB*   **Source Code**

- Engineered a distributed IoT system integrating ESP32 cameras, computer vision model, and Firebase Realtime Database to track pickleball court occupancy and queues in real time
- Reduced object detection latency by 50% by streaming frames to a persistent YOLOv8 worker process, eliminating per-request cold starts and model reloading overhead