TAHA AZIZ
tahamaziz.com

EXPERIENCE

Sentia   Richmond Hill, ON
Software Engineer (Full-time and co-op)   Jan. 2023 – Dec. 2024
- Developed Sentia data storage platform mainly with Azure and Node.js for 50+ global enterprise clients
- Switched backup uploads from full-file to chunk-based deduplication using SHA-256 block hashing before writing to Azure Blob Storage, lowering storage volume by 23% and saving ~$75k/year in cloud costs
- Diagnosed API latency and replaced JSON stringify with streams, cutting response time from 480 to 210ms
- Built REST API endpoints using Express.js and TypeScript to write metadata to Postgres database
- Integrated distributed tracing with OpenTelemetry, reducing engineering time spent diagnosing crashes
- Led weekly code reviews, teaching SOLID principles and software design patterns to the junior team

Sheertex   Montreal, QC
Software Developer (Co-op)   May 2022 – Jul. 2022
- Developed a production monitoring dashboard using Python, Flask, and React to provide real-time visibility into manufacturing line operations for managers
- Led the development of a machine vision system for manufactured products using PyTorch, improving defect detection accuracy to 96.7% precision and reducing QA time by 75%
- Built a staging environment for the dashboard using GitHub Actions, preventing production errors

PROJECTS

User Auth Service (app.tahamaziz.com)
- Developed a secure user authentication full-stack application using React, Node.js, and Postgres
- Implemented a REST API with Express.js with middleware to protect routes and microservice integrations
- Designed Postgres data table and SQL queries for secure read/write transactions of user data
- Implemented password hashing and analysis in Rust for <10ms runtime, integrated into Node.js using N-API
- Containerized the application using Docker and orchestrated deployment using docker-compose

Vis-jit (npmjs.com/package/vis-jit)
- Authored and published npm module "vis-jit" with JavaScript, for visualizing Node.js JIT optimizations, such as type inference and inline caching, meeting developer demand and reaching 400+ weekly downloads
- Implemented client-server model for serving log data from Node.js to the frontend visualizer

Waterloo Rocketry: Rocket Tracking Software
- Developed embedded C++ software for GPS radio telemetry of the team's rocket, with checksum validation of incoming bytes for fault tolerance, allowing operation with up to 50% malformed byte frames
- Collaborated with cross-functional (RF/hardware/PCB) teammates for successful integration and iteration

SKILLS

JavaScript/TypeScript, Node.js, React, Python, Flask, SQL, Postgres, Rust, C++, Docker, Azure, Git, CI/CD

EDUCATION

University of Waterloo   Waterloo, ON
Bachelor of Applied Science in Mechatronics Engineering and Computing   Jun. 2024
- Coursework: Operating Systems, Algorithms, GPU Programming, User Interfaces, Intro to AI