

Jonathan Rufus Samuel

Software Engineer | Systems Design & Software Architecture | Open-Source Advocate

EXPERIENCE

CERN | INFRASTRUCTURE & SOFTWARE DEVELOPMENT ENGINEER

September 2024 – Present | Geneva, Switzerland

- Currently a Windows Administrator & Infrastructure Software Developer. Primarily Tasked with migration of over 10000+ machines from CERN's own endpoint management solution (CMF) to Intune and MECM, along with developing supporting software for integrations as well as support operations.
- Revamped the Email Alert's Web App using .Net Core, which currently serves for sending email alerts for over 10000+ machines on site.
- Developed a fully configurable notifications service with a simple compiler to dynamically interpret configurations into code
- Orchestrated, Maintained and wrote over 70% of all documentation for both user and supporter facing issues related to Developer Best Practices, Intune and MECM.

Tools Used: C#, Python, React, Git, OpenShift, OpenStack, Docker, Azure, Kubernetes, MSSQL, Influx DB, Grafana and Microsoft Configuration Manager and Intune.

HYPERFACE | SDE INTERN - BACKEND ENGINEERING

January 2024 – July 2024 | Bangalore, India

- Lead a team of 3 Application Engineers to complete company wide APIGEE updation and migration, spanning over 4 microservices within the Hyperface application suite.
- Wrote Python Scripts for migrating over 2 million bank records to our servers for further data processing and analysis.
- Designed and developed a centralized Cron Tracker Mechanism within our orchestrator service. and Developed the end-to-end functionality for AU Bank's Virtual Card Handling feature, whilst leading a team of 3 Application Engineers.

Tools Used: Java, Apache Groovy, Java Spring Boot, Spring Security, Apache Kafka, Gradle, Postman, MySQL, Python Scripting, Burpsuite.

PROJECTS & OPEN-SOURCE WORK

DIJKSTRA | FOUNDER, OPEN SOURCE DEVELOPER & HEAD MAINTAINER

February 2023 – present | Bangalore | github.com/Dijkstra-Edu

- Started an open-source organization that caters to students preparing for jobs within tech via proof of work based Open Source work.
- Lead Software Architect; Developed and currently maintaining an intricate system of services, with over 20 repositories written in various languages and frameworks, from Next.js, TypeScript, Python, FastAPI, Rust & Axum, Go & Gin and Java Spring Boot. This it to expose students to various technologies and frameworks. Main POC for overall direction and management of project.
- Head of DevOps and Software Infrastructure, and am currently maintaining CI/CD, Repository management, collaboration and scrum.
- Actively mentored over 30 students on a rolling basis for software development and best practices over the last year, as well as maintaining documentation, software infrastructure and deployment lifecycles.

Tools Used: TypeScript, Next.js, ShadCN UI, Java, SpringBoot, Rust, Axum, Go, Gin, Node.js, Express.js, JavaScript, Astor, Azure Cloud, AWS (planned), GCP (planned), Docker, Kubernetes, Git & Github, Supabase, MongoDB, PostgreSQL, Postman.

AUTOMATED MP3 TAG EDITOR VIA DATA MINING

Github: github.com/Mp3-Automated-Tag-Editor

- Worked with **Shivansh Sahai** and **Dr. Swarnlatha P** to create **Automated Mp3 Tag Editor**, a tool which scrapes metadata of music tracks from various sources, and classifies them via an in-house Vector Indexing Machine Learning Algorithm.
- Built a stand alone Full Stack Desktop Application using Rust, Tauri and a Next.js frontend via ShadCN UI.
- Developed an API server using FastAPI and Python, as well as a standalone binary for normal user usage, as well as coupling with the Desktop app.

DOI: 10.4018/978-1-6684-8098-4.ch012

Tools Used: Rust, Python, FastApi, React, Tauri, Azure, Docker, Sqlite, ShadCN UI.

EDUCATION

VELLORE INSTITUTE OF TECHNOLOGY, VELLORE

B.Tech Computer Science Engineering w/ Specialization in IoT

CGPA: **8.51**

2020-2024 | Vellore, India

BISHOP COTTON BOYS' SCHOOL

2005-2020 | Bangalore, India

12th Boards: **93.5%** (ISC)

10th Boards: **91.2%** (ICSE)

SKILLS

Programming

TypeScript & Javascript • Java • Python • C# • Rust • Go • C++ • SQL (MySQL, PostgreSQL, MSSQL & SQLite3) • C/C++ • Groovy

Frameworks & Technologies

Next.js • .Net Core • Spring Boot • FastAPI • React JS • Axum • Gin • React-Native • Git & GitHub, Gitlab • NodeJS & ExpressJS • Azure Cloud • AWS Cloud • MongoDB • Supabase • REST API Design • GraphQL • Docker • AKS - Kubernetes • OpenShift • OpenStack • Grafana • ElectronJs • Tauri • Selenium • Jest • Linux • Scrum & Agile Methods • DevOps • Systems Design • Astro • Intune & MECM

ACHIEVEMENTS

- Completed **Microsoft Azure Administrator Associate (AZ-104) & Azure Fundamentals (AZ-900)** Certification offered by **Microsoft**.
- Ex **Alpha Level Student Learn Ambassador** at **Microsoft**.
- Open Source Contributor at **AppFlowy**, **CERN Root**, **Dijkstra**, **Apprentice** and **YAFS**.
- Over **1400 contributions** on GitHub, top 4.4% for repositories contributed to (66).
- Systems Design and Algorithm Design Certified by **AlgoExpert**.
- Mathematics for Machine Learning Specialization offered by **Imperial College London** & Completed Accelerated Computer Science Fundamentals Specialization offered by **University of Illinois (GoldmanSachs ECHP-23 Program)**
- **Top 3%** of Leetcode by Problems Solved
- Mentor at CERN and Dijkstra to student community, ex-mentor to IEEE-TEMS

LINKS

Github: <https://github.com/JRS296>

LinkedIn: <https://linkedin.com/in/jrs2002/>

Website: <https://jrs296.github.io/JRS-Studios/>

LeetCode: <https://leetcode.com/JRS296/>

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