

Sajeevan Vinayakavaseekaran

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PROFILE

Accomplished software professional with 3+ years of experience in designing and implementing software system architectures. Proficient in driving solutions through agile methodologies and emerging technologies, with a hands-on approach to delivering impactful results. Known for innovating solutions to complex challenges and leading collaborative teams to ensure efficient, scalable software development.

EXPERIENCE

CLOUD SOLUTIONS INTERNATIONAL (PVT) LTD | 2021 MAY – PRESENT

Technologies: Angular | Java | Spring | Spring Boot | Kafka | Redis | PostgreSQL | Oracle | MongoDB | Servlets | Hibernate | REST | GraphQL | Junit | GIT | Jenkins

SENIOR SOFTWARE ENGINEER

- Scrum Master and Delivery Lead, managing multiple teams concurrently to develop Billing, Invoice, and Insurance Approval modules, driving design decisions and ensuring timely project delivery.
- Integrated Redis within microservices and utilized Kafka for messaging between modules, optimizing caching and reducing latency from milliseconds to microseconds, significantly boosting system performance.
- Led a major refactor of the billing module, optimizing complex multi-level rule-based calculations, significantly reducing database interactions, and boosting overall performance by 42%.
- Spearheaded onsite VIDA system deployment in new hospitals in KSA, ensuring stability through pre-release configuration and optimization. Reduced production incidents by 55% compared to the previous year.

SOFTWARE ENGINEER

- Integrated POS and CDMs into the VIDA system, enabling seamless transaction processing. This involved configuring protocols and managing API connections, optimizing operational efficiency across modules.
- Invented Angular components, such as an infinite scroll select dropdown, easily integrable with any paginated API, and user permission directives for role-based access. These solutions, developed through research, were adopted by the team to enhance efficiency across modules.
- Implemented features like search, pagination, notifications, schedulers, and auditing across modules, ensuring comprehensive unit test coverage for system reliability.
- Conducted unit testing, integration testing, and performance testing, while implementing automation frameworks to ensure system stability and high performance.

SHIPXPRESS TECHNOLOGIES (PVT) LTD, A WABTEC COMPANY | 2019 JUN – 2019 DEC

Technologies: Ionic | NodeJS | ExpressJs | PouchDB | MySQL | GIT

SOFTWARE ENGINEER INTERN

- Integrated messaging functionality into the mCrew mobile application, enabling one-to-one and group-based instant messaging for railway department personnel.
- Led end-to-end delivery, managing UI mock-up design, implementation, API design, backend implementation, and database connectivity using Ionic, ExpressJs, NodeJs, and MySQL.
- Conducted unit tests for frontend and backend, API integration tests, and automated end-to-end testing with Selenium, while documenting design and architecture in Confluence for team-wide awareness and understanding.

EDUCATION

B.SC. ENG. (HONS.) SPECIALIZED IN COMPUTER SCIENCE AND ENGINEERING | 2016 – 2020

UNIVERSITY OF MORATUWA

Cumulative GPA - 3.34

SECONDARY EDUCATION - G.C.E ADVANCED LEVEL 2015

JAFFNA HINDU COLLEGE

National rank 133, District rank 12, Z-Score 2.469. All 'A' Passes for Mathematics, Physics, and Chemistry.

PROFESSIONAL DEVELOPMENT

- Deep Learning Specialization - deeplearning.ai, Coursera (2019-2020).
- Reactive Angular Course with RxJs - Udemy (2021).
- Getting Started with Apache Kafka - Pluralsight (2021).
- Machine Learning with Python - IBM, Coursera (2019).
- MongoDB Basics - MongoDB University (2019)

PROJECTS

API-BASED ATTACK SIMULATION & DETECTION USING RL (PACGUARD) | FINAL YEAR PROJECT

Team Lead & Researcher | *Python / Keras / GNS3 / Flask / Docker / Reinforcement Learning*

Research and development of an Intrusion Detection System (IDS) called PacGuard, which detects DDoS type attacks against APIs. The reinforcement learning technique is used to build the system so that it can keep learning over time to detect new attack strategies.

VIRTUAL SELF-DRIVING CAR USING REINFORCEMENT LEARNING | SEMESTER PROJECTS

Developer & Team Player | *Python / Keras / TensorFlow / Pygame / Reinforcement Learning*

<https://github.com/sajeevan16/Moway>

Designed and developed a virtual self-driving car simulation using reinforcement learning to observe the impact of autonomous cars in various traffic situations, including interactions with human-driven vehicles. The system allowed for creating custom traffic environments and simulating traffic bottlenecks, offering insights into self-driving car behaviors in real-world traffic phenomena.

EXAMINATION MANAGEMENT SYSTEM (A/L PILOT EXAMINATION) | VOLUNTEER EXPERIENCE

Database Administrator & System Developer | *PHP / MySQL / jQuery / AJAX / HTML5 / MySQL / GIT*

A complete web-based examination management system for the communication purpose of an island-wide A/L pilot examination. Included multiple types of users that are admins with all the permissions and privileges, island-wide coordinators, district coordinators, data entry operators, content Managers etc.

AWARDS & CERTIFICATES

- CSI Automation Day 2023 - Excellence in Test Automation Award
- Computer Scientist Competition ICT Championship 2011 - Bronze Award in National Level | 1st Place in Northern Province.
- IEEEExtreme 11.0 | 12.0 - Placed within the top 50 Sri Lankans.
- Participated in the Shopee Code League 2020
- Contributing open source with Hacktoberfest 2020.

EXTRACURRICULAR ACTIVITIES

- Vice Secretary in Tamil Literary Association - University of Moratuwa in 2020.
- Island-wide Coordinator, DB Manager in Mora E-Tamils A/L pilot examination Committee.
- Active Member in IESL, IEEE, Gaval Club, and Tamil Literary Association.
- Secretary of Science Union at Jaffna Hindu College in 2013