

Aravindha Saamy H

Software Engineer

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👤 Summary

Software Engineer with over **3+ years** of hands-on experience, skilled in developing robust solutions and contributing effectively to team projects. Eager to leverage my **technical abilities** and passion for innovation in a **dynamic environment**, while continuously expanding my **knowledge and driving positive** outcomes for the organization.

📁 Experience

Valor PayTech Software Developer

Nov 2021 - Present

Guindy

- Delivered **critical projects on time**, maintaining a **100%** on-time delivery rate by consistently writing high-quality, production-ready code under **tight deadlines**.
- Improved code quality by **10%**, as measured by reduced technical debt and improved maintainability, by writing clean, efficient, and well-documented code — frequently recognized in peer code reviews.
- Maintained perfect **attendance and punctuality**, contributing to a dependable, **team-oriented work culture** and minimizing workflow disruptions.
- Enhanced application performance by **optimizing SQL queries, utilizing indexing, and implementing stored procedures, reducing query time and enhancing user experience**.
- Boosted backend efficiency and response times by integrating optimized SQL queries within Node.js APIs, enhancing data handling performance across **high-traffic modules**.
- Improved page load speed by **30%** by optimizing React component rendering and minimizing unnecessary re-renders through proper state management (useState, useEffect, memoization).
- Participated in CI/CD pipelines using **GitLab** for deployment, contributing to faster delivery cycles and fewer rollback incidents.
- Collaborated in **Agile** teams using tools like **GitLab, ValorTracker, DBeaver, and Postman**, contributing to **monthly sprints** and participating in **code reviews and daily stand-ups**.

📊 Skills

Python C++ JavaScript HTML CSS React Node.js Agile AWS Git MySQL Linux Express.js

📄 Projects

Valor Switch UI

Internal Data Access & Visualization Platform

Technologies: React.js, Node.js, Express.js, SQL, JWT, GitLab CI/CD, Jest, Supertest

- **Designed and developed** a secure internal web platform enabling non-technical users to access and analyze transactional data without SQL, increasing operational efficiency by 60%.
- Built a **dynamic dashboard** using React.js with real-time filtering, search, and visualization, improving user experience and accessibility by **50%**.
- Mapped frequently-used SQL queries to reusable APIs via **Node.js/Express.js**, **reducing** support requests by **40%**.
- Enhanced data retrieval time by **45%** through **stored procedures, optimized queries, and indexing strategies**.
- Secured the platform with **JWT authentication**, eliminating unauthorized access incidents.
- Decreased deployment errors by **70%** using automated GitLab CI/CD pipelines for consistent rollouts.

Fleet Card Transaction Processing – TSYS Integration

Fleet Card Payment Engine using ISO 8583 Protocol

Technologies: C++, ISO 8583, Socket Programming, Multi-threading, Secure Sockets

- Developed a real-time transaction engine in C++, integrating with TSYS via **ISO 8583**, enabling processing of over 10,000 transactions/day.
- Built an **API** to manage request/response logic between POS/VT systems and TSYS, reducing processing delays by **35%**.
- Boosted performance by **50%** using multi-threading and secure socket communication for concurrent transaction handling.
- Implemented secure message handling and **PCI DSS**-compliant encryption, ensuring zero data breaches in production.

Flamingo Portal

Enterprise Web Application Platform

Technologies: React.js, TypeScript, Redux Toolkit, Node.js, Express.js, MongoDB, MySQL, Git

- Led full-stack development using React, TypeScript, and Redux Toolkit, delivering features that reduced manual workflows by **55%**.
- Built scalable MySQL and MongoDB databases, supporting a **40%** increase in data volume without impacting performance.
- Enabled real-time UI updates, improving response time and system interaction by **35%**.
- Collaborated cross-functionally with UI/UX and QA teams, reducing defects by 30% post-deployment.

Secure PAN Card Data Encryption/Decryption – AWS Magnus

Confidential Data Protection Module

Technologies: AWS Magnus, Node.js, REST APIs, Encryption Libraries

- Developed secure **encryption/decryption** flows using **AWS Magnus**, preventing storage of plaintext data and achieving **100%** encryption compliance.
- Accelerated secure data access by building optimized **REST endpoints**, reducing processing time for encrypted data by **40%**.
- Ensured compliance with financial data regulations, reducing audit flags to zero.

ISO 8583 POS Simulator

Custom Transaction Simulation

Technologies: C++, ISO 8583, Socket Programming, SQL, Logging Utilities

- Built a **POS** simulator in C++ to emulate **ISO 8583** transactions, increasing QA coverage by **70%**.
- Enabled batch and parallel execution of simulated transactions, accelerating test cycles by **50%**.
- Logged request-response data to **SQL database**, improving traceability and debugging efficiency by **60%**.
- Created custom simulation scripts, identifying and resolving **95%** of protocol-related defects pre-production.

Centralized Log Monitoring and Visualization System

Full-stack Observability & Alerting Pipeline

Technologies: Filebeat, Logstash, Elasticsearch, Grafana, YAML, Systemd, Linux

- **Implemented a centralized logging pipeline**, reducing log troubleshooting time by **65%**.
- Configured Filebeat and Logstash for structured log ingestion, achieving **99.9%** log capture accuracy across **distributed systems**.
- Created real-time Grafana dashboards, increasing system observability and alert responsiveness by 80%.
- Automated provisioning with Systemd/YAML, cutting manual setup time by **70%** and improving stack consistency.
- Tuned Elasticsearch indexing, improving query response speed by **45%** and optimizing storage usage by **30%**.
- Implemented stored procedures, optimized queries, and indexing to enhance data retrieval performance. Secured the platform with JWT-based authentication and role-based access control.
- Tested critical features using Jest and Supertest to ensure backend reliability.
- Managed CI/CD via GitLab, ensuring stable and automated deployments.

Education

R. M. K College Of Engineering And Technology
BACHELOR OF COMPUTER SCIENCE AND ENGINEERING





2020

Certifications

- **Full Stack Development with AI tools**
GUVI Geek Networks, IITM Research Park
- **[PCEP-30-02] PCEP™ – Certified Entry-Level Python Programmer**
Python Developer
- **Data science**
Simplilearn

Personal Projects

Source Code Repository: GitHub

- *Movie Booking Site* – MERN stack app with seat selection, user/admin roles, and mock Razorpay integration.
 [movieBookingSite](#)
- *Mind Game* – React-based logic game to improve memory and concentration.
 [mindGame](#)
- *Password Reset Flow* – Secure email-based password reset system using React, Node.js, and MongoDB.
 [passwordRestFlow](#)
- *Income & Expense Calculator* – Web app to track income, expenses, and visualize savings trends.
 [incomeCalculator](#)