GNANA SEKAR

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Innovative and results-driven software engineer with 10+ years of experience designing and delivering scalable, high-performance solutions. Expertise in leading cross-functional teams, driving innovation, and implementing modern technologies to solve complex challenges. Proficient in Python, Docker, Ansible, AWS, and other cutting-edge tools, with a proven track record of delivering high-quality products ahead of schedule and exceeding project goals. Thrives in collaborative, fast-paced environments, with a focus on adaptability and continuous improvement.

SKILLS

Languages	PHP, Javascript, Python, Git, SQL, Redis
Frameworks	Angular, Vue JS, Express JS, Codeigniter, Laravel, Flask, Pandas, Numpy
Technologies and Tools	NodeJS, Linux, Docker, Azure, AWS Lambda, AWS DynamoDB, Prometheus and Grafana, Ansible
Certifications	Azure Fundamentals

EDUCATION

National Engineering College, *BE in Computer Science and Engineering* | Kovilpatti,India GPA: 7.0 / 10.0 Apr 2013

EXPERIENCE

TVS Next, *Lead Software Engineer* | (Chennai, India) Nov 2021 - Till now

- Designed and developed a real-time application to track hardware production data and monitor machine performance using Raspberry Pi technology, improving operator efficiency and productivity in manufacturing.
- Implemented an advanced OCR system using AWS Lambda and Postgres, reducing manual processing time by 40% and integrating third-party applications for enhanced operational efficiency.
- Developed a proprietary tool to analyze third-party responses against parsed claims files, ensuring 100% data accuracy and mitigating potential financial losses through comprehensive dataset validation.
- Reverse-engineered and optimized the ETL process for syncing two databases using Python (Pandas) and AWS Lambda, streamlining data workflows and improving operational accuracy.

Valor Paytech, *Senior Technology Analyst* | Chennai, India Nov 2020 - Nov 2021

- Led a 4-member team to design and develop a Merchant Processing System, achieving a 70% reduction in operational costs by optimizing transaction fees and streamlining payment processes.
- Designed and implemented REST APIs for a mobile application using Laravel, enabling seamless integration and improved functionality. Successfully deployed the solution on AWS with Docker, increasing system efficiency by 50%.
- Centralized email workflows in the CRM through a Middleware Layer, effectively reducing duplicate emails sent to endpoint users by 60%.

Isoaccess Pvt Ltd, *Senior Software Programmer* | Chennai, India Apr 2016 - Oct 2020

- Collaborated with a 3-member team to design and develop a CRM mobile application using the Ionic Framework, enhancing accessibility and usability for end users.
- Spearheaded the development of a real-time notification system using Node.js and Redis, reducing notification delivery time by 60% and increasing user interaction by 35%.
- Optimized report generation performance by 90% through the implementation of a Redis caching system, significantly improving system responsiveness and user experience.
- Designed and implemented a Residual module to automate the preparation of monthly payments for all CRM users, ensuring accuracy and efficiency in financial processes.

MRL Posnet Pvt Ltd, *Software Programmer* | Chennai, India May 2014 - Apr 2016

- Led the design and implementation of a custom quality assurance module for the Merchant Processing System, streamlining error identification and resolution processes, achieving a 40% reduction in processing errors.
- Redesigned and customized the Vtiger CRM platform by tailoring modules and workflows to align with business processes, increasing lead conversion rates by 25% and shortening the sales cycle by 20%.

PROJECTS

IoT-Enabled Fastener Machine Monitoring and Efficiency Tracking Feb 2024 - Till now

- Designed and developed a system to track fastener machine production data by integrating a Raspberry Pi with a proximity sensor, enabling real-time monitoring and reducing manual data tracking efforts by 50%.
- Implemented real-time pulse signal counting from the sensor and displayed live updates on a dashboard using WebSockets, improving operational visibility and reducing downtime analysis by 40%.
- Developed modules for tracking machine idle time, loss booking, fastener quality analysis, first-off approval, and machine health monitoring, resulting in a 30% improvement in production efficiency.
- Optimized data storage on device kiosks using Redis, achieving a 60% reduction in data retrieval latency and ensuring seamless synchronization through the multiprocessing module.
- Integrated the MQTT protocol for the message queue system, facilitating seamless communication between the Raspberry Pi and the platform server via a broker, increasing message delivery efficiency by 35%.
- Implemented a Metrics Agent on all devices to monitor system performance and Redis memory usage. Integrated the monitoring solution with Prometheus for data collection and Grafana for real-time visualization, enabling proactive system health tracking and reducing issue resolution time by 50%.
- Designed and deployed an automation tool using Ansible for IoT device management within an intranet network. Created Ansible playbooks to standardize and streamline device configuration, reducing deployment time by 40% and enhancing operational reliability across all devices.

Treatment Claims Service Integration Jan 2024 - Feb 2024

- Implemented a streamlined process for creating claims information and integrating it with third-party Claims Services using the **Single Source of Truth (SSOT)** methodology, ensuring data consistency and accuracy.
- Led the integration of advanced search functionality from Claims Services, resulting in a 50% increase in search accuracy and a 20% improvement in overall user experience on the platform.

OCR Implementation Mar 2022 - Dec 2023

- Developed an OCR system using AWS Lambda to automate document parsing and data extraction, reducing errors by 50% and improving operational efficiency by 30%.
- Implemented an event-driven workflow to trigger processes upon claim PDF uploads to an S3 Bucket, extracting file metadata and integrating seamlessly with the third-party OCR API **First Source**.
- Designed and deployed an automated invoice processing system leveraging OCR technology, decreasing manual handling time by 60% and reducing processing errors by 40%.

Merchant Processing System May 2019 - Nov 2021

- Spearheaded the creation of an innovative Merchant Processing Application Portal leveraging Angular technology; seamlessly integrated Docusign for digital signatures, transforming the user experience and accelerating transaction processing by 25%.
- Directed the implementation of automation workflows in underwriting, leveraging AI and machine learning technologies to achieve a 30% reduction in processing time and a 20% increase in application accuracy.

CRM Mobile Application Jan 2019 - Nov 2021

- Designed and developed a robust CRM Main module for mobile app, featuring Lead, Account, and Document management capabilities; the revamped module contributed to a 35% increase in conversion rates and a 15% reduction in customer churn.

Residual System Jan 2017 - Apr 2018

- Architected and deployed a sophisticated residual module to parse and interpret payment processor FDR and TSYS statements, facilitating a 20% reduction in reconciliation time and a 30% improvement in financial statement accuracy.
- Matched with commission value with parsed statement to calculate the monthly payment.