

VARADHARAJAN RAGHAVENDRAN

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📍 Bengaluru, India

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EXPERIENCE

Senior Consultant Staff Engineer / SDE-4

Visa Inc. - Currencycloud End Client Onboarding

📅 Nov 2025 – Present

📍 Bangalore, India

– Platform Architecture & Domain Ownership

- Led engineering and architectural evolution of the End Client Onboarding platform supporting Currencycloud's B2B2X ecosystem.
- Owned the **Case Management** and **Identity** domains for regulated onboarding workflows serving 20+ internal services and partner integrations.
- Applied **Domain-Driven Design (DDD)** to define bounded contexts, decomposing onboarding into 10+ capability-driven services and reducing cross-service coupling.

– Event-Driven Architecture & Scalability

- Architected a scalable event-driven onboarding platform using **Java, Spring Boot, and Apache Kafka**, enabling straight-through processing across distributed microservices.
- Designed the system to handle **300–500 onboarding workflow events/sec per service pod** under peak load.
- Optimized Kafka throughput via partition-aware topic design and consumer group parallelism, maintaining **sub-50 ms P95 event latency**.

– AI-Assisted Compliance Automation

- Introduced AI-assisted compliance workflows using **Claude Code** and agentic orchestration to automate investigative context gathering.
- Generated actionable compliance case summaries, reducing manual investigation time by approximately **35–40%**.

– Performance Optimization & Modernization

- Drove platform performance improvements through Datadog-driven P95–P99 latency analysis, reducing **P99 latency by 20–25%** across key onboarding APIs.
- Led modernization initiatives including adopting **R2DBC** and **Java Virtual Threads**, increasing request concurrency capacity by approximately **2–3x**.

– Technical Leadership & Governance

- Served as **Application Technical Contact (ATC)** for 3+ mission-critical services.
- Drove SSDLC governance, security posture reviews, architecture compliance, and release readiness across engineering, security, and operations.

EDUCATION

BE in Computer Science and Engineering

College of Engineering Guindy, Anna University

📅 Jun 2016 – Jun 2020 📍 Chennai, India

- Held an academic excellence with CGPA: 9.3
- Volunteered in National Sports Organisation (NSO).
- Did my final year project contributing a Decision Support System for agriculture under the guidance of Dr.Velammal

PROGRAMMING SKILLS

Java

Python, Scala

Javascript, Angular, Nodejs

SQL, Mongoddb, Firebase



TECHNICAL SKILLS

Web development

Extract, Transform, Load (ETL)

Full stack development

Android Application Development

Data Science

Artificial Intelligence

Natural Language Processing

Deep Learning

Blogging

EXPERIENCE

Staff Data Engineer/Fullstack Engineer

Visa Inc. - Loyalty and Benefits Platform

📅 Mar 2024 – Oct 2025

📍 Bangalore, India

– Lead Developer for Data Pipeline Modernization

- Led a scrum team of 6 developers to modernize data pipelines from conventional ETL processes using Spark to distributed stream processing with Apache Kafka, enhancing efficiency and scalability.
- Redesigned data pipelines for Cardholder Maintenance Files using a Lambda architecture, integrating a Kafka pipeline for real-time processing of 5M records and batch processing file drops handling 30M records. Focused on distributed data processing, data integrity, reliability, and 6 9's availability, maintaining the system with Tier0 SLAs.
- Architected robust REST/GRPC APIs leveraging Java alongside frameworks such as Spring and Spark; reduced latency by an average of 200ms per request through optimized code practices within the application ecosystem.

– Development and Implementation of Web Platform

- Modernized the Visa Feature Select platform with linear cardholder configurations, streamlining the process of configuring common benefits at regional, card product, or issuer levels and transitioned the monolith code written on Struts and Spring MVC to Spring Boot and React, thus making it modern, lighter microservices (microfrontends) and modular.
- Led the data modeling initiative by adopting the Snowflake pattern to structure tree-like data, utilizing Caffeine as the primary in-memory cache and Redis as a secondary cache for query caching and indexed data stores. This optimization reduced GET API retrieval time from 250ms to under 100ms, handling a 300 TPS load efficiently, thus making the APIs robust.

– Contribution to GENAI Initiatives

- Developed a marketing genie powered by OpenSora, Deepfloyd and Llama-3 which enabled our marketing teams to make creative advertisement banners.
- Developed a virtual concierge our benefits platform with RAG powered by Redis VectorStore and Anthropic's Claude APIs.
- Built a unified offers platform consolidating merchant, issuer, and other offers, providing user persona-based recommendations by using tokenizers and KNN clustering to group cardholders based on their spend patterns.

– Collaboration with Stakeholders

- Worked with stakeholders including product organization, engineering management, and business analysts to break down high-level epics and features into actionable user stories.
- Set technical direction, mentored team members, and fostered a collaborative team environment.

– Security and Compliance

- Ensured the security and compliance of data processing systems, adhering to industry standards and regulations such as GDPR and PCI DSS.
- Adopted SSDLC and proprietary encryption mechanisms to protect sensitive information within distributed systems (data at rest and motion).

CERTIFICATIONS

- 2021: Certified Kubernetes Application Developer, The Linux Foundation.
- 2020: Deep Learning Specialization, Coursera.

SOFTSKILLS

- Eager to learn
- Team Work
- Agile
- Observant
- Self motivated
- Professionalism
- Agile
- Scrum

VOLUNTEER

- 2022: GRIT volunteer
- 2021: Visa Bengaluru Quiz volunteer
- 2020: Toastmaster - VSpeakers

ACCOMPLISHMENTS

- 2022: TechCon, Visa Bengaluru Technical Conference - Paper presentation on Multiparty transaction SCA - runners
- 2022: USPTO Filed - US - 17/878,823 - SYSTEM AND METHOD FOR SCHEDULING DATABASE APPLICATIONS
- 2021: Trade Secret Filed - Enhanced methods for advertiser campaign measurement

EXPERIENCE

Senior Data Engineer/Fullstack Engineer

Visa Inc. - Buyer Travel Solutions, Digital Benefits Platform

📅 Mar 2024 – Present

📍 Bangalore, India

– Buyer Travel Solutions

- Visa offers travel solutions to Issuers and Resellers, creating and managing travel itineraries to avoid cross-border declines.
- Stabilized the platform post-COVID, addressing increased XB transactions.
- Worked on Travel Authorization Tag to reduce cross-border and out-of-state declines.

– Visa Digital Benefits Platform Development

- Contributed to the transition from Visa Feature Select to Long-Term Architecture.
- Migrated data and modernized user experiences, ensuring seamless integration.
- Enhanced UI/UX for clients, including brokers like DragonPass and AXA.
- Utilized Micronaut framework and reactive streams to improve responsiveness.
- Implemented Redis and RediSearch for faster data retrieval and search functionality.

– Core Competencies

- Specialized in distributed data processing and transaction management for microservices, ensuring data integrity.
- Applied SOLID principles for robust, scalable, and maintainable systems.

– Development of Complex Features

- Developed features like impact assessment for benefits and bundled packages.
- Implemented a tree-structure for benefits creation, ensuring no redundancy or violations.

– Technical Skills and Proficiencies

- Languages and Frameworks: Java, Spring, Micronaut
- Data Engineering: Apache Hive, Redis, RediSearch
- API Development: REST, GRPC, Reactive Streams
- Concurrency Control: Two-phase and multi-phase commits
- Systems Design: Scalable and high-performance systems
- Distributed Systems: Design and implementation expertise
- Transaction Management: Various protocols proficiency
- Team Management: Led a team of 6 developers in a scrum environment

– Key Achievements

- Adopted Micronaut framework to improve processing speed and scalability.
- Launched a web platform for benefits configuration, enhancing user experience.
- Collaborated with stakeholders for project alignment.
- Achieved 30% reduction in cross-border declines post-COVID.
- Improved performance by 40% and achieved 300 tps per pod with Redis and RediSearch.
- Enhanced responsiveness and scalability with Micronaut and reactive streams.

PROJECTS

DSS for Agriculture

A system to facilitate the end user to search for information of plants either by uploading a picture of the plant or asking NL queries to the system. This involved the possibilities of exploring *Cloze question answering* and *ClosedQA* models that can learn the domain knowledge and produced a good accuracy of 90%

Code Completing JARVIS

A voice based code completing web application. The algorithm is not rule based and it is a heuristic model and we have created the pilot version that can support for C, Cpp and Java languages and can create complex code structures without having to be too much verbose.

Hypernym Recommender

A recommendation system that recommends the people to be followed in twitter by analyzing the common area of interests across various users simply from their tweets done through a topic modelling and clustering approach

LANGUAGES

Tamil

English



REFERENCES

Several available upon request.

EXPERIENCE

Senior Software Engineer with Visa.Inc

Risk and Authentication programs

📅 Apr 2021 – May 2023 📍 Bangalore, India

- **Guide Authentication Product Development**
 - Worked on FIDO fundamentals and development of the Guide Authentication product.
 - Contributed to CI/CD setup, test automation, and microservices stack.
 - Utilized Java, Karate, Locust, Spring Boot, Kubernetes, and Jenkins.
 - Mentored summer interns on projects, providing guidance and support.
- **Next Generation Fraud Signals**
 - Generated fraud signals based on identity profiles in an identity graph.
 - Developed batch data pipelines to collect source data and construct identity graphs.
 - Created pipelines to generate synthetic fraud scores from TC40 data.
 - Led a team of 4 engineers, delivering high-quality solutions.
 - Conducted Exploratory Data Analysis (EDA) for graph modeling in JanusGraph.
 - Worked with graph fundamentals to model identity graphs with PII as nodes.
 - Evaluated the feasibility of using JanusGraph for fraud modeling.
 - Led the migration of applications to an open-source Hadoop platform.
- **Patent and Innovations**
 - Awarded a patent for "System, Method, and Computer Program Product for Machine Unlearning on Identity Graph Neural Networks".
- **Technical Skills and Proficiencies**
 - Languages and Frameworks: Java, Spring Boot
 - Data Engineering: Hadoop, JanusGraph
 - CI/CD and Automation: Jenkins, Karate, Locust
 - Containerization: Kubernetes
 - Graph-based ML algorithms
 - Team Management: Led a team of 4 engineers
- **Key Achievements**
 - Developed fraud signals using identity graphs, improving detection.
 - Optimized batch data pipelines for graph construction and fraud scoring.
 - Migrated applications to an open-source Hadoop platform.
 - Conducted EDA for successful JanusGraph modeling.
 - Awarded a patent for innovative work on machine unlearning in identity graph neural networks.

EXPERIENCE

Software Engineer with Visa.Inc

Merchant Data Products

📅 Aug 2020 – Mar 2021 📍 Bangalore, India

- Developed an automated framework for Advertisers matching process for Visa Ad Solutions product.
- Kickstarted the productionalization of propensity audiences for Visa Ad Solutions product.
- Worked in eclectic technologies like python,spark,Hadoop,Hive,shell.

Summer Internship with Visa.Inc

Data Products Development

📅 May 2019 – Jul 2019 📍 Bangalore, India

- Developed an automated healing framework to patch the anomalies in updating transaction aggregations to Merchant Search Engine.
- End to end development of the search engine with adequate transaction aggregations.
- Worked in Apache Hadoop and Spark for building the backend of the framework.
- We only had 10 weeks to come up with a solution for improving the overall data quality and thus the search rate.

Summer Internship with Enunui Technologies

Full Stack development

📅 June 2018 – Jul 2018 📍 Erode, India

- Assisted my peers in developing a event management system with NodeJs and Angular.
- Worked with Google Direction and Maps API for building the UI and MongoDB as backend store for building the locate the event feature
- Containerized the application and deployed it as micro-frontend and backend microservice.