

# RAGHURAM GUDEMARANAHALLI NATARAJA

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**Results-driven Software Engineer skilled in cloud computing, scalable systems, backend development, and object-oriented programming. Experienced in building efficient data pipelines that boost system performance and scalability.**

## EDUCATION

### Portland State University

Master of Science, Computer Science, GPA:3.86

September 2023 — June 2025

### Visvesvaraya Technological University

Bachelor of Engineering, Computer Science

August 2016 — June 2020

## SKILLS

**Programming Languages:** Java, Python, C, JavaScript, NextJS, ReactJS, Bash, shell, SQL, HTML, CSS

**Frameworks and Libraries:** Flask, Bootstrap, Pandas, TensorFlow

**Databases:** MySQL, PostgreSQL, RDBMS, MongoDB

**Tools and Platforms:** Power BI, Power Apps, Azure Databricks, GCP, Kafka, Docker, GIT, Python flask, Kubernetes, Terraform

**Operating Systems:** UNIX/Linux

## EXPERIENCE

### Pentachrome Technologies

Software Engineer

September 2022 - June 2023

- Collaborated in a 5-member team to optimize **ETL workflows** by refining queries, achieving a 70% reduction in retrieval time and a 50% improvement in data processing efficiency, enabling faster enterprise decision-making.
- Optimized SQL query performance and improved code quality by refining stored procedures, debugging with **PySpark**, and resolving critical incidents, achieving a 2x improvement in query execution speed for enhanced report generation and user experience.
- Leveraged **Kafka** for real-time data streaming, achieving a 60% reduction in ETL pipeline latency and boosting data throughput. Enhanced scalability and seamless handling of high-volume datasets.

### NTT DATA Services

Software Engineer

November 2020 - August 2022

- **Engineered** custom Power Apps, boosting user satisfaction and task efficiency by 25% through agile development and user-focused UI design.
- **Contributed** to developing RESTful APIs using Spring Boot in Java, emphasizing modularity and separation of concerns in microservices. Improved scalability and reduced API latency by 30%, enabling seamless enterprise workflows.
- Optimized API performance, cutting query time from 500ms to under 300ms by efficiently using MySQL with JPA/Hibernate. Enhanced scalability to support high-volume transactions with minimal latency.

## PROJECTS

### TriMet GPS Data Engineering Project

April 2024 - May 2024

- Built a scalable data pipeline using **Python and Google Cloud Pub/Sub**, processing over 1 million GPS sensor readings daily, ensuring reliable and continuous data flow.
- Merged GPS breadcrumb data (real-time vehicle location points) with scheduled stopEvents (planned arrival/departure times) using Python and Pandas, then stored enriched data in PostgreSQL to enable high-performance querying and transit analytics.
- Analyzed transit data using **Pandas and Matplotlib**, generating visualizations that revealed route delays and transit performance trends for TriMet operations.

### BookTown an E-commerce Platform

January 2024 - March 2024

- Designed a responsive e-commerce bookstore using HTML, CSS, Bootstrap, and JavaScript, boosting user engagement by 50%.
- Implemented core features such as **user authentication**, shopping cart, order placement, and secure payment integration, enhancing user experience.

### Cloud-Native Stock & Currency Converter with Scalable API Deployment

April 2024 - June 2024

- Engineered a cloud-native backend application using **Google Cloud Run and Docker**, optimizing API response times by 50% ensuring scalable, reliable performance.
- **Integrated RESTful APIs** for real-time stock and currency data, processing 500+ API requests daily, enhancing user decision-making efficiency by 40%.
- Implemented a **Flask**-based web application with secure API endpoints, ensuring real-time processing of stock and currency conversion requests with an average response time of less than 200ms.
- Strengthened security with **Google Cloud Secrets Manager** for API key management, ensuring secure access to sensitive credentials.