

# RAGHURAM GUDEMARANAHALLI NATARAJA

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Results-driven Software Engineer with expertise in cloud computing, scalable system design, and backend development. Proficient in Python, Java, with a track record of optimizing ETL pipelines and reducing data latency by 70%. Passionate about designing efficient software solutions to solve real world problems.

## EDUCATION

### Portland State University

September 2023 — June 2025

Master of Science, Computer Science

### Visvesvaraya Technological University

August 2016 — June 2020

Bachelor of engineering, Computer Science

## SKILLS

**Programming Languages:** Java, Python, 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

September 2022 - June 2023

Software Engineer

- Led a 5-member team to optimize ETL workflows, reducing query retrieval time by 70% and improving data processing efficiency by 50%, enabling faster decision-making for enterprise analytics.
- Optimized SQL query performance and improved code quality by refining stored procedures, debugging with PySpark, and resolving critical incidents. Reduced query execution time from 3 seconds to under 1 second, enabling faster report generation and smoother user experience.
- Implemented Kafka for real-time data streaming, reducing ETL pipeline latency by 60% and increasing data throughput for large-scale datasets, improving system scalability.

### NTT DATA Services

November 2020 - August 2022

Software Engineer

- **Engineered** custom Power Apps, increasing user satisfaction and task efficiency by 25% through agile development and user-focused design.
- Designed and developed high-performance RESTful APIs using Spring Boot in Java, adhering to microservices best practices. Improved system scalability and reduced response latency by 30%, ensuring seamless integration with enterprise applications.
- Optimized API performance, reducing query execution time from 500ms to under 300ms by efficiently interfacing with MySQL using JPA/Hibernate for object-relational mapping. Improved system scalability, supporting huge number of transactions per day 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 with route stopEvents using Python and Pandas, and stored enriched data in PostgreSQL for high-performance querying.
- Developed real-time **data analytics and visualization tools using Python libraries**, creating interactive dashboards that provided actionable insights for TriMet's transit operations.

### BookTown an E-commerce Platform

January 2024 - March 2024

- Designed a responsive e-commerce bookstore using **HTML, CSS, Bootstrap, and JavaScript**, increasing 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.