

Vivek Kumar Verma

Guwahati, Assam

vivekkumarverma332@gmail.com — LinkedIn — GitHub

Objective

Backend and Data Engineer with 3+ years of experience in designing scalable backend systems, developing microservices, and building intelligent data-driven applications using Python. Experienced in building AI-powered platforms, Retrieval Augmented Generation (RAG) systems, and distributed architectures with a strong focus on automation, performance, and reliability.

Technical Skills

Languages:	Python, SQL, C++
Frameworks:	Django, Django REST Framework, FastAPI
Databases:	PostgreSQL, MySQL, MongoDB, Oracle, SQL Server, Redis
Big Data:	PySpark, Polars, Snowflake, Databricks
Cloud / DevOps:	AWS (EC2, S3, SQS, RDS, Lambda), Docker, Jenkins
Messaging:	RabbitMQ, Kafka, AWS SQS
Tools:	Celery, Airflow, Git, Postman, DBT, Sisense, Watchdog

Professional Experience

Software Engineer

May 2025 – Present

Spark Eighteen Lifestyle Private Limited

- Developing an AI-powered HRMS platform built on microservices architecture to automate HR operations and employee lifecycle management.
- Designing scalable backend services using Django and FastAPI for modular HR services such as payroll, attendance, leave, and employee management.
- Developed API-based Retrieval Augmented Generation (RAG) systems to enable intelligent knowledge retrieval and contextual query answering.
- Implemented RBAC (Role-Based Access Control) enforcement within the RAG system to ensure secure document and knowledge access.
- Building distributed backend services and event-driven workflows to support scalable enterprise-level HRMS systems.

Software Engineer

Jan 2023 – Apr 2025

TechVariable, Guwahati, India

- Designed and developed scalable REST APIs using Django and FastAPI, enabling seamless integration between data services and external clients.
- Built and deployed containerized applications using Docker, orchestrated with AWS (EC2, S3, SQS, Lambda).
- Created and maintained asynchronous task queues using Celery and RabbitMQ for distributed task execution.
- Engineered robust ETL pipelines using PySpark, Polars, Databricks, and Snowflake, optimizing transformation performance by over 40%.
- Led SQL performance tuning and implemented reusable connectors for major CRMs (Zoho, Salesforce) and databases (Oracle, PostgreSQL, SQL Server).
- Developed event-based microservices for healthcare data (CCD, HL7v2, FHIR, EDI X12) with custom JSON output formats.
- Implemented monitoring, logging, and automated testing (Pytest) to ensure reliability and system observability.
- Mentored junior developers and interns in backend design patterns, data modeling, and SQL optimization.

Education

MCA – Tezpur University, Assam 2021 – 2023
CGPA: 9.06/10 (Gold Medalist)

BCA – Cotton University, Assam 2018 – 2021
CGPA: 8.49/10 (Gold Medalist)

Research & Publications

EnRaFS: Ensemble Ranking-Based Feature Selection for Grading Gallbladder Cancer
Springer ICEEE 2024 — Tools: Python, Scikit-learn, Matplotlib

Languages

English, Hindi

Hobbies

Photography, Cycling, Writing, Cooking, Exploring Nature