

PRATYUSH KUMAR

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[LinkedIn](#) | [GitHub](#) | [LeetCode](#)

Backend Software Engineer with 3+ years of experience building scalable microservices, event-driven systems, and data engineering pipelines using Java and Spring Boot in fintech. Hands-on with Apache Kafka for real-time financial processing and custom ETL/data transformation frameworks for high-volume workflows. Built a production-grade agentic AI debugging tool integrating Claude Sonnet with PostgreSQL, GitLab, and internal APIs.

EXPERIENCE

SOFTWARE ENGINEER

Rahi Platform Technologies | Feb 2025 - Present | Pune, India

Project: Loan Management System (LMS) - Core Financial Platform for Banks and NBFCs

- Owned end-to-end development of the **Master Data Management (MDM) module** - core backbone of the LMS platform - designing **110+ master entities**, multi-type data validation, and persistence logic across relational databases
- Delivered key **LMS financial modules** including penal interest calculation, loan excess refund handling, and Beginning of Day (BOD) trial balance computation with fallback mechanisms, ensuring **zero data loss and full ledger consistency**
- Architected a **dynamic data ingestion and transformation framework (DataLoader + DataTransformer)** using JSON-driven mappings for automated RDBMS operations across **110+ entity types**, reducing manual data handling effort by **40%**
- Implemented **event-driven GL daily summary and trial balance computation** via Apache Kafka, processing **10K+ financial events daily** triggered on business date events for real-time financial processing across **15+ microservices**
- Built a **generic, reflection-based repository layer** using Java Reflection API to dynamically handle CRUD operations across **110+ entity types**, eliminating repetitive DAO code by **30%** and making the framework extensible without additional boilerplate
- Authored unit and integration tests using **TestNG and Mockito**, achieving **85%+ coverage** across MDM and LMS modules; validated critical financial flows including penal interest, refunds, and trial balance edge cases

SOFTWARE ENGINEER

Aptiv | Oct 2022 - Feb 2025 | Bangalore, India

Project: ADAS Software Validation - Multi-Sensor Fusion for Autonomous Driving

- Built **automated data pipelines** using Python to replay sensor logs and generate validated outputs in CSV, XML, MF4, and CAN formats for radar and camera systems across 4 sensor positions
- Developed **automated comparison and validation scripts** to detect mismatches between generated outputs and reference logs, reducing manual QA effort by **50%** and accelerating test cycle time by **35%**
- Designed **data processing workflows** for high-volume telemetry logs from real-time vehicle environments and virtual simulations
- Debugged and enhanced **ADAS detection algorithms including Cross Traffic Alert (CTA)**, improving detection accuracy and reducing false positive rates

SOFTWARE ENGINEER INTERN

Cognizant | Apr 2022 - Oct 2022 | Remote, India

- Built **RESTful APIs** for a seller management system using Java, Spring Boot, and MySQL; implemented data validation logic ensuring consistency
- Optimized SQL queries** for efficient data retrieval, improving query performance by **20%**

PROJECT

Dev Assistant - Agentic AI Debugging Tool (Vibe Coded with Claude Code)

Stack: Next.js 15, TypeScript, Claude Sonnet 4.6 (Anthropic SDK), PostgreSQL, GitLab API, Nomad, Puppeteer, BM25

- Built a production-grade **agentic AI system** that autonomously queries PostgreSQL, GitLab (90+ repos), Nomad service logs, and internal portals to diagnose production bugs, cutting debugging time from hours to minutes
- Implemented a **multi-step agentic tool-use loop** where Claude autonomously decides which tool to call (DB query, code search, log fetch, screenshot), executes it, and iterates until root cause is identified
- Built a **RAG pipeline using BM25** over internal XML specification documents (FSD, LAM configs) for semantic search over business rules without an embedding API
- Implemented **real-time SSE streaming** with collapsible tool-call panels, giving engineers full visibility into every query executed; enforced read-only access at both application and DB credential levels

EDUCATION

B.Tech in Information Technology | Heritage Institute of Technology, Kolkata | 2018 – 2022

PROFILES & CERTIFICATIONS

- LeetCode:** 332+ problems solved | [Profile](#)
- HackerRank:** [Problem Solving \(Basic\)](#) | [Problem Solving \(Intermediate\)](#)
- GitHub:** Production-grade AI project | [Dev Assistant](#)

SKILLS

Java, Python, SQL | Spring Boot, REST APIs, Microservices, Apache Kafka | Claude API, Agentic AI, Prompt Engineering, RAG | PostgreSQL, MySQL | TestNG, Mockito, Coverity | Git, Docker, Jenkins, Linux, Jira | System Design, Event-Driven Architecture, Agile/Scrum