

Rahul Bagul

New Jersey, USA

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Education

Purdue University

Master of Science in Computer Science

Aug 2023 – May 2025

Indiana, USA

Sinhgad College of Engineering, Pune University

Bachelor of Engineering in Information Technology

Aug 2017 – May 2021

Pune, India

Technical Skills

Programming Languages: Java, Python, C++, JavaScript, Go, SQL, HTML/CSS

Frameworks: Spring Boot, Maven, Express, React, Node.js, Django, REST, SOAP/WSDL, gRPC, Flask

Databases: MySQL, PostgreSQL, MongoDB, Redis, Snowflake

Cloud and DevOps: AWS, GCP, Salesforce, Kafka, Docker, Git, Firebase, Kubernetes, Linux

Skills: Design Patterns, Multithreading, Object-Oriented Design (OOD), Data structures, Micro-services, Machine Learning(ML), Neural Networks, LLM/AI

Work Experience

Snowflake

Data and AI Intern

May 2024 – Aug 2024

San Mateo, USA

- Spearheaded a full-cycle project to automate test class generation (73% accuracy) using Python and Snowflake SQL API, minimizing security vulnerabilities via LLM fine-tuning and RAG.
- Raised error detection accuracy by 16% by applying ML functions and models (LLaMA, Mistral) for log analysis.
- Built advanced ETL pipelines to process 20K+ daily error logs and millions of records, extracting actionable insights and improving data handling efficiency by 30%.

Snowflake

Software Engineer

June 2021 – July 2023

Pune, India

- Architected a consumption projection forecasting system in Salesforce, cutting projection errors and improving revenue forecasting accuracy by 18% through collaboration with data engineering and sales.
- Implemented an email handler system to automate inbound/outbound email processing, extracting data and generating dynamic responses, improving response times and handling 2K+ emails daily.
- Engineered efficient data integration between Salesforce and external systems, employing APIs (REST, SOAP) with OAuth 2.0 and JWT security, delivering a 21% efficiency increase and heightened security.
- Refactored backend logic and optimized queries, reducing query execution time by 17% through SOQL indexing and bulk processing, handling 10K+ daily transactions and 1M+ records for improved scalability.
- Enhanced the UI system to align with modern design trends, resulting in a 30% improvement in user satisfaction and adoption by 500+ GTM business users, as evidenced by overwhelmingly positive client feedback.

Projects

File Drive - Cloud Storage Application | *Spring Boot, AWS S3/Lambda, MySQL, Firebase, System Design* **March 2025**

- Engineered a secure file storage system using AWS S3 with pre-signed URLs for direct upload/download, integrating Lambda functions for upload notifications and implementing multipart upload for large files with resumable feature.
- Designed a scalable architecture with layered components for file metadata management, user authentication via Firebase, and secure file sharing with granular permissions, following RESTful principles for client-server communication.

Travelopedia | *React, Spring Boot, MySQL, GCP, MongoDB, Docker, Redis*

December 2024

- Collaborated with a team to build a scalable travel planning platform using React (Context API) and Spring Boot microservices, integrating Redis caching to reduce API latency by 98%.
- Streamlined deployment with Docker and Kubernetes on GCP, allocating separate instances for each microservice to ensure isolated, efficient service management.

Mastodon TutorAI | *Python, MongoDB, ChromaDB, OpenAI, GCP*

August 2024

- Led a six-member team to build an AI-driven tutoring platform using a RAG approach with ChromaDB and MongoDB, while overseeing system architecture and project progress.
- Applied OpenAI embeddings with the LLaMA model and developed a Python pipeline integrating ChromaDB for semantic search and MongoDB for structured data storage.