

Vansh Pratap Singh

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EXPERIENCE

BITO | SOFTWARE DEVELOPMENT ENGINEER 2

Oct 2024 – Present | Pune, India

- Built code context extraction for PR reviews using Rust, tree-sitter, and ASTs (abstract syntax trees), boosting AI-driven code analysis.
- Automated evaluation of the core AI agent, cutting manual testing and accelerating release cycles by 20%.
- Drove cost optimizations, lowering operational expenses by up to 60%.
- Wrote R&D and competitive analysis reports, aiding client retention and acquisition.
- Secured 1st place in a company-wide hackathon with a high-impact internal tool.
- **Tech:** Rust, Python, Go, AI/Prompt Engineering, AWS, Docker, SQL, Git, Linux.

ADDA247 | SOFTWARE DEVELOPMENT ENGINEER 2

Jul 2022 – Oct 2024 | Gurugram, India

- Built real-time YouTube live classes (polls, chat, leaderboards) handling 50K+ concurrent users & 2K msgs/sec, driving 18% conversion to the app.
- Led microservice migration with request coalescing, reducing server/DB load by 40%, and optimized JVM bottlenecks for 4x throughput.
- Boosted classroom engagement by 17% via distributed interactive systems. Recognized & awarded for major reliability improvements.
- Promoted from SDE-Intern to SDE-I to SDE-II within 2 years for consistent high performance.
- **Tech:** Java, Spring Boot, Golang, Rust, Axum, Lua, SQL, Kafka, Elasticsearch, Redis, MongoDB, Kibana, Docker.

SAMSUNG R&D | RESEARCH INTERN

Nov 2021 – May 2022 | Remote

- Simulated 5G network behavior using ns-3 and C++, contributing to research and theoretical validation through custom simulation code.
- Researched 5G RAN energy challenges and documented key KPIs and optimization strategies.
- **Tech used:** Linux, Ns-3, C++.

PROJECTS

CLERVA AI | RUST, AXUM, TOKIO, SVELTEKIT, POSTGRES SQL, PAYMENT GATEWAY, ARTIFICIAL INTELLIGENCE (AI), PROMPT ENGINEERING, LLMs

Sept 2025

- Built a full-stack interview preparation app with a high-performance Rust backend (Axum + Tokio) and SvelteKit frontend.
- Implemented AI-driven question generation from job descriptions and resumes, with hints and sample answers.
- Designed preparation modes (Revision, Skim, Detailed) to simulate real interview scenarios.
- Integrated secure user management, session handling, password recovery (with email alerts), and integrated payment gateway support.

EDUCATION

CHANDIGARH UNIVERSITY

BACHELOR OF ENGINEERING IN
COMPUTER SCIENCE

Jul 2019 – Jul 2023 | Punjab, India

ACHIEVEMENTS &

AWARDS

HACKATHON WINNER

1ST PLACE, BITO INTERNAL
HACKATHON (2025)

BYOMKESH BAKSHI AWARD

AWARDED BY ADDA247 (2024)

For demonstrating strong
problem-solving and technical skills.

RESEARCH WORK

ENERGY EFFICIENCY IN 5G RAN

- Authored "Analysis of Energy Consumption and Optimization Strategies in 5G RAN Elements," circulated internally to inform R&D initiatives.

TECHNICAL SKILLS

LANGUAGES

Rust • Python • Java • Go • C++ •
Lua • SQL • HTML/CSS •
JavaScript

TECHNOLOGIES & FRAME- WORKS

AWS • Docker • Kubernetes • Git
• Linux • Spring Boot • Kafka •
RabbitMQ • Elasticsearch • Redis
• MongoDB • DynamoDB •
FastAPI • Django • Gin • Axum •
Actix • React • Svelte • Prompt
Engineering • LLM • Artificial
Intelligence (AI)

LINKS

Portfolio: vanshpratapsingh.com
LinkedIn: [vanshpratapsingh](#)
GitHub: [IIXSKYWALKERxII](#)
Python Game: [self-havoc](#)