

# Saman Ranjan Pradhan

Software Developer

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## Professional Summary

Experienced Software Developer in product-based startups, skilled in building scalable systems for dynamic environments. Strong background in computer science, passionate about continuous learning and contributing to project success.

## Technical Skills

**Languages:** Python, JavaScript, TypeScript, Java  
**Backend Technologies:** FastAPI, Django, Node.js, MySQL, PostgreSQL, MongoDB, Redis, Celery, Websockets  
**Cloud & DevOps:** AWS, Hostinger VPS, Docker, CI/CD  
**Frontend Technologies:** React.js, Next.js, HTML & CSS, Tailwind, Bootstrap  
**AI & ML Technologies:** LLMs, LangChain, Vector Databases, Response Fine-Tuning

## Professional Experience

### EZ Works

October 2024 – Present

Backend Developer

Gurugram, India

- Managed and enhanced a **scalable microservices architecture** with 8+ services for the CAT tool **TR42.ai** leveraging **async frameworks** to optimize **translation workflows**, reduce latency, and improve reliability.
- Developed a **real-time chat microservice** for creating and disabling chat groups across multiple complex trigger points in business logic, delivering **1000+ msg/sec** via **low-latency WebSocket communication** and leveraging **Redis Pub/Sub, Matrix, FastAPI**, and optimized indexing for scalability.
- Engineered scalable microservices for **background priority task management using a translation model, Celery, and Redis**, which reduced **API response times by 40%**, **increased capacity by 50% with Kubernetes & KEDA**, and optimized GPU cost efficiency.
- Optimized **sentence-splitting architecture** and **TM management**, enhancing **fuzzy matching** and reducing lookup times across millions of entries, **improving response time by 200%** and improving user experience .
- Optimized **Redis caching** for **TM retrieval** and **sentence segmentation**, boosting query speed and reliability.

### Sketchnote

December 2023 – April 2024

Software Developer

Remote

- Spearheaded the development and integration of **advanced AI features**—AI-driven task creation, AI analytics, and a PDF AI-Query bot—leveraging **Langchain, Vector DBs, similarity searches, and ML algorithms**.
- Implemented enterprise-grade Single Sign-On using **OKTA** and **EntraID**, ensuring secure, seamless authentication and authorization for high-profile clients while **reducing IT overhead and improving enterprise client experience**.
- Developed time tracking, management, and approval workflows, **empowering users to efficiently monitor** project durations, optimize productivity, and streamline inter-project coordination **boosting their workflows**.
- Implemented performance optimizations for API endpoints handling form and file creation, **achieving a 180% improvement in response times**, thereby enhancing system scalability and overall user satisfaction .

### InQbator

August 2023 – December 2023

Full Stack Developer Intern

Remote

- As the **Founding Engineer**, designed and developed a **scalable backend architecture with full EC2 server setup, configuration, maintenance**, and integrated PhonePe payment gateway for seamless financial transactions.
- Built the initial phase of **Electra AI** model, an innovative solution targeting college students.

## Projects

Wellscribe | NodeJS, ExpressJS, MongoDB, ReactJS

November 2023

- Led development of a complete full-stack healthtech product for medical professionals for a client with a team of .
- Integrated Snomend CT (standard for health information) for seamless user experience, becoming USP for startup.
- Applied MERN stack expertise to ensure scalability, efficiency, and adherence to international medical standards.

## Education

Vellore Institute of Technology (Online)

June 2027(Expected)

Master of Computer Applications (MCA)

Vellore, India

University of Calcutta

August 2024

Bachelor of Science (Mathematics, Computer Science, Statistics) – CGPA: 8.339

Kolkata, India

Masai School

September 2023

Full Stack Development (Certificate)

Remote