

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, C/C++

Backend Technologies: FastAPI, Django, Node.js, MySQL, PostgreSQL, MongoDB, Redis, Celery, Websockets

Cloud & DevOps: AWS, Docker, CI/CD (CircleCI, ArgoCD), Nginx

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

- **Optimized inter-service communication between 8+ microservices for TR42.ai** with multi-level Celery task pipelines and event-driven messaging, cutting complexity and speeding up development.
- **Redesigned the translation pipeline** by refactoring the inference codebase, **migrating GPU workloads off EC2 to newer cost-effective platform**, and engineering a scalable central **task management microservice**, resulting in **40% lower infra cost, 50% higher capacity, and significantly faster model deployments**.
- 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 **WebSocket** and leveraging **Redis Pub/Sub, FastAPI**.
- **Built a production-grade AI chatbot** using **LLMs & custom datasets**, orchestrating **multi-agent workflows in LangGraph** and integrating with **WhatsApp API** for seamless, real-time user engagement. **streamlined data pipelines, and custom memory modules**.
- Built a centralized error handler using **Pub/Sub** with **CloudWatch logging & monitoring**, **cutting debugging time by 25%** and boosting incident response across the whole distributed system.
- 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 file path** of translated output file generation and **sentence segmentation**, reducing output generation speed by 20% and server costs by 25%.

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 – November 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

University of Calcutta

August 2024

Bachelor of Science (Mathematics, Computer Science, Statistics) – CGPA: 8.3

Kolkata, India

Masai School

September 2023

Full Stack Development (Certificate)

Remote