

Anish Sarkar

Kolkata | anishsarkar282@gmail.com | [LinkedIn](#) | [GitHub](#) | [Portfolio](#)

Education

Techno Main Salt Lake

Nov 2022 – Present

Bachelor of Technology, Information Technology

Experience

SDE Intern

San Francisco, USA (Remote)

[SurfSense](#) [🔗](#)

Dec 2025 – Present

- Rebuilt **Docker CI/CD pipeline** with **multi-architecture** build and deployment support
- Optimized **indexing and ETL(Extract, Transform, Load) pipelines** for scalable, **high-throughput** data processing
- Implementing and improving data ingestion across many connectors like **Notion, Slack, YouTube, Google Drive, OneDrive**
- Enhanced **RAG-based LangChain** deep agents architecture for improved **retrieval accuracy** and reasoning

React Development Intern

Gorakhpur, India (Remote)

[AppYard Infotech](#)

Nov 2025 – Dec 2025

- Built production-ready mobile apps using React Native and scalable backend services with Node.js.

Research Intern ([Research Paper](#) [🔗](#))

Kolkata, India (Remote)

IEEE Computational Intelligence Society

June 2025 – July 2025

- Studied and applied **Genetic Algorithms (GAs)** for ligand-protein energy optimization, implemented and open-sourced a TSPLIB-validated NBGA solution. ([Source Code](#) [🔗](#))

Open Source Contributions

SurfSense

[Source Code](#) [🔗](#)

- Built an **Elasticsearch connector** enabling scalable full-text search, integrated a **BlockNote-powered** rich text note editor, and resolved bugs to improve overall stability and user experience

Projects

Smart India Hackathon 2024 (a 36-hour Hackathon)

[Source Code](#) [🔗](#)

- Won 2nd place among 500 teams** in Punjab with 5 peers, building a mentorship platform for **more than 1000 users** with cosine similarity-based matching (**92% compatibility accuracy**), real-time scheduling for **50 concurrent sessions**, and AI-driven career guidance
- Tech Stack: React.js, Tailwind CSS, Flask, Python, Firebase, Cal.com API, OpenAI API, WebRTC, Docker

Loopr: Cron-Job Application

[Live Demo](#) [🔗](#)

- Built a distributed uptime monitoring platform with **dynamic load balancing** across **5 worker nodes**, processing **more than 100 URLs per node** in batches with **4-shard result distribution**, configurable **5-minute to 24-hour ping intervals**, and a **Svelte** dashboard with real-time 30-second auto-refresh and 100-entry history retention
- Tech Stack: Svelte, SvelteKit, Appwrite BaaS, Docker

Farmalyze: Smart Agriculture System

[Live Demo](#) [🔗](#)

- Built 3 ML models for crop recommendation, fertilizer suggestion, and plant disease detection achieving **89.1% accuracy** across **90,100+ combined samples**, **reducing crop failure prediction time by 78.6%** through automated analysis of **7 key agricultural features**
- Tech Stack: Python, React.js, Flask, ML (scikit-learn, TensorFlow, PyTorch), SQLite, OpenWeatherMap API

Real-Time Video Calling Application

[Source Code](#) [🔗](#)

- Developed a **real-time 1:1 video calling platform** using **WebRTC** for peer-to-peer streaming and **Spring Boot** for signaling, with **room-based connections**, **SSL/HTTPS** security, and deployment via **Docker** and **Nginx**
- Tech Stack: Spring Boot, Svelte, WebRTC, Docker, Nginx

Technologies

Languages: Python, Java, JavaScript, SQL (MySQL, PostgreSQL, SQLite), HTML, CSS

Frameworks & Libraries: Flask, Django, Spring Boot, Next.js, Svelte, TensorFlow, PyTorch, scikit-learn, LangChain

Tools & Technologies: Docker, CI/CD, Git, UNIX, Bash, AWS