

Swarnadeep Saha Poddar

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Education

Siliguri Institute of Technology <i>Bachelor of Technology in Computer Science and Engineering</i>	Aug 2022 – Present
Caesar School, Malbazar <i>Class XII – CBSE</i>	Aug 2020 – July 2022
St. Xavier's School, Raiganj <i>Class X – ICSE</i>	Mar 2008 – July 2020

Experience

Full Stack Developer @ Dimension Lab	Aug 2023 – Feb 2024
- Developed production-ready web applications using React.js, Node.js, Express.js, MongoDB .	
- Implemented secure authentication, optimized API latency, and enabled server scaling for increased traffic.	
- Deployed services on AWS (EC2, S3, IAM) and container-based workflows using Docker & Microservice .	
MERN Developer Intern @ IIT Delhi	Dec 2024 – Feb 2025
- Built a scalable Learning Management System (LMS) backend using Node.js, Express, MongoDB , improving API.	
- Designed role-based authentication (Admin/SuperAdmin) and optimized REST APIs for performance.	
- Containerized backend services using Docker and deployed automated builds via GitHub Actions CI/CD .	

Technical Skills

Programming Languages: JavaScript, TypeScript, Python, Java, C, Go
Databases: MongoDB, PostgreSQL, MySQL, Firebase, Supabase, Appwrite, SQLite, Oracle DB SQL
Backend: Node.js, Express.js, Django, RESTful APIs, GraphQL, JWT Authentication, Multer, Prisma
Frontend: React.js, Next.js, TypeScript, JavaScript (ES6+), Tailwind CSS, Framer Motion, Redux, NextAuth
Developer Tools: Postman, Figma, VS Code, Bash, Shell Scripting, Subprocesses Terminus, VMware Workstation
Computer Vision: Object Detection, Contour Analysis, Face Recognition, Edge Detection and more using OpenCV
DevOps Tools: Nginx, Docker, Kubernetes, Jenkins, Git CLI, Github CI/CD, Terraforms, Kafka, Redis, Apache Kafka
Frameworks & Libraries: Django, Flask, Tkinter, Pandas, NumPy, Matplotlib, Seaborn, Plotly, OpenCV, Scikit-learn
Cloud Tools: AWS Lambda, EC2, VPC, S3, Google App Engine, Firebase, Google Apis, Azure Blob Storage, Entra ID

Projects

Synergy-X — <i>Python, Linux, Tkinter, Shell, Firmware APIs, PDF Tools</i>	Github
- Executes firmware-level sanitization (ATA Secure Erase, NVMe Sanitize) ensuring irreversible data removal.	
- Developed a secure, offline, and bootable platform for complete data erasure from HDDs, SSDs, NVMe, and Devices .	
- Generates tamper-proof, digitally signed PDF/JSON wipe reports compliant with NIST SP 800-88, GDPR, CCPA	
SSPAI-CLI — <i>Node.js, Express.js, MongoDB, JS Threads, Gemini API, OpenAI API</i>	NPM Package
- Enabled seamless switching between Gemini and OpenAI models with a modular configuration architecture.	
- Implemented multi-threaded execution using JavaScript Threads for concurrent task handling and better performance.	
- Built a full-stack AI-powered Command Line Interface (CLI) tool offering instant AI assistance directly from CMD	
Trip Blueprint — <i>React.js, Node.js, Google Maps API, Google Vertex AI, Tailwind CSS</i>	Live Project
- Implemented dynamic map rendering with custom markers, live distance calculations, and destination-based insights.	
- Designed a responsive and modern UI using React.js and Tailwind CSS , ensuring seamless usability across devices.	
- Developed an intelligent travel planning platform that integrates Google Maps and Vertex AI to provide real-time route	
SSP Gemini — <i>Tech Stack: JavaScript, Google Gemini API, Google Cloud Platform, Flask Backend</i>	Live Project
- Integrated with Google Cloud Services for API orchestration, storage, and scalable deployment.	
- Built an interactive front-end enabling users to query, visualize, and interpret responses with embedded media cards.	
- Created a conversational AI assistant leveraging Google Gemini to generate real-time, context-aware responses for users.	
Virtual Gather — <i>Python, Django, JavaScript, Agora, WebRTC, SQLite</i>	Live Project
- Integrated Agora and WebRTC to deliver ultra-low latency audio and video communication.	
- Implemented spatial audio, dynamic room management, and secure role-based access for meetings.	
- Developed an innovative real-time virtual meeting platform powered by Django (backend) and JavaScript (frontend).	
VehicleVision — <i>Python, OpenCV, TensorFlow, Flask, MongoDB</i>	(In Development)
College Collab — <i>React Js, Node JS, Express Js, MongoDB, Redux, Bycrypt</i>	(In Development)