SANKALP MUKIM

4th year B.Tech student

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EDUCATION

Vellore Institute of Technology,Vellore   **September 2020 – August 2024**
B.Tech- Computer Science Engineering   *Vellore, India*

G. D. Goenka School, Karkardooma   **April 2011 – March 2020**
CBSE(Class 12th)   *East Delhi, India*

TECHNICAL SKILLS

Languages: Typescript, Go, Javascript, Python, C, C++

Technologies/Frameworks: ReactJS, GoFiber, GORM, NodeJS, GraphQL, AWS, Azure, GCP, React Native, Python, Django, Flask, FastAPI, Docker, PostgreSQL, MongoDB, Tailwind, NestJS

EXPERIENCE

IBM Cloud   Bengaluru
GenAI Full Stack Engineer · AI Ops IBM Cloud   Mar 2025 - Present

- **Solo Maintained Terminal Emulator**: Single-handedly maintained an enhanced internal fork of the AI Native Terminal Emulator Wave Terminal (https://www.waveterm.dev/) for use by entire IBM Cloud L1 Support squad. Built several AI and non-AI features while working in a modern tech stack (Go, ElectronJS, Typescript, React).

- **Advanced Agentic Chatbot**: Worked on a sophisticated agnentic chatbot used to debug & solve production issues for IBM Cloud. Used modern techniques such as Task Breakdown, Tool Calling, Custom MCP Support, and various innovative data interfaces. Used across both IBM Cloud dev and support teams.

- **Built Runbook Management Software**: Built from scratch a tailored knowledge-base management software that uses RAG based AI approach to search through multiple unstructured data sources into one 'chat with your kb' interface.

ION Group   Delhi NCR
Software Engineer · Barracuda FX (Infra team)   Jan 2024 - Mar 2025

- **Led AWS Cost Reduction Initiative**: Implemented AI-driven tools and automation strategies to reduce AWS expenses by 50%. Established company-wide best practices for efficient and responsible AWS resource management.

- **System Administration and DevOps**: Created and Managed internal development environments. Built automation using Python, Shell scripting, and Docker. Performed Database migrations, backups and restores. Deployed software on AWS using best practices such as Infrastructure as Code (IaC) and set up CI/CD pipelines.

- **Built and managed monitoring suite**: Built a complex and comprehensive monitoring tool that involved a Python based data pipeline, data categorization/refinement tool in React + Python + MySQL, PowerBI reports, and HTML Reports. These were used internally for monitoring system health as well as sent to clients.

IoTReady   Remote
Software Engineering Intern · Beaming White ERP Frontend   Jan 2021 - Mar 2021

- **React App Development**: Worked on integrating a React-Admin dashboard application with a Hasura powered GraphQL backend. Made an ERP program to manage marketing leads from scratch.

- **Support Backend development and configuration**: Helped with AWS SNS integration for sending and verifying OTPs. Dealt with generating and validating JWTs. Improved and updated Postgres schema for dealing with feedback and improving features.

PROJECTS

AWS Accounts Manager ○ | ☑ | Typescript, React, Plasmo, GitHub Actions, AWS   **Oct 2022**
- Fully cross platform Browser extension with **50+** Active users.
- Automated deployments to all 3 browsers using CI/CD and Sophisticated API Integration for each.
- Best-in-class product with smooth UX with 0 compromise to any user's regular workflow. Built-in portability using export/import functionality.

Cryptic Hunt ○ | ☑ | Typescript, Prisma, Postgres, Firebase, Node-Cache, Docker, AWS   **Oct 2022**
- Lead a team of engineers to design and deploy a Frontend and a Backend multi layer system that had **over 500** Concurrent users.
- Designed an efficient and highly normalized Database schema along with several indexes to provide the full leaderboard in an efficient manner using caching.
- Configured database replicas to scale horizontally according to demand

Court Hero ○ | ☑ | Raspberry Pi, Python, OpenCV, NextJS, Auth0, FastAPI, Docker, Websockets**Mar 2023**
- A distributed ML and Computer Vision (OpenCV) powered architecture that can scale horizontally as per need. It delivers information in real time to the end users using Web Sockets.
- Raspberry Pis analyse badminton courts in an efficient polling approach for most accurate results. It sends information to the backend. The frontend connects to backend using websockets and shows info in Real Time.

VIT WiFi Connect ○ | ☑ | React Native   **Mar 2023**
- Published an Android app that helps student connect to WiFi in a single click. Helps avoid VIT's Clunky WiFi portal site.

Numpuz ○ | ☑ | React, Firebase, React Context, Dark Mode   **Mar 2023**
- Multiplayer UI intensive interactive puzzle based game. Built using ReactJS with a Realtime leaderboard.

CERTIFICATIONS

- AWS Certified Solutions Architect Associate – AWS
- Practical Networking – Udemy
- Nginx – Udemy

EXTRACURRICULAR

Association for Computing Machinery – VIT   **Dec 2021 – Apr 2023**
(Web Dev, DevOps)   *Vellore Institute of Technology, Vellore*
- Worked on a game event backend that scaled for over 500 concurrent users reliably during the duration of the event.
- Scaled applications, handled devops for real userbase and following. Used and taught Typescript, Go, NodeJS, Prisma, ReactJS in my chapter.

VITspot   **May 2021 – Jul 2022**
(Web Development)   *Vellore Institute of Technology, Vellore*
- Developed a student friendly calendar integration tool that saw 500+ daily active users.