# **SMARTH SOOD**

ACADEMIC PROFILE									
Degree/Certificate		Institution					Pe	rcentage/CGPA	Year
IDD		Bio-Medical Engineering IIT (BHU), Varanasi						8.80	
Sem I	Sem II	Sem III	Sem IV	Sem V	Sem VI	Sem VII	Sem V	III Sem IX	Sem X
6.85	9.20	9.28	9.55	8.85	9.43	-	-	-	-
ISC (XII)		Mount Carmel School Thakurdwara						95.75	2022
ICSE (X)		Mount Carmel School Thakurdwara						95.20	2020

# **SKILLS**

- Programming Languages: C++, Java, Python, JavaScript/TypeScript, SQL
- Web and Frameworks: Node.js, React.js, Next.js, TailwindCSS, HTML, CSS, PostgreSQL, MongoDB
- DevOps: AWS (EC2, ECS, Lambda), Docker, Kubernetes, Digital Ocean, Monitoring (Prometheus, Grafana)
- Interests: Web Development, Object Oriented Programming, Data Structures and Algorithms, Operating Systems

#### INTERNSHIP/TRAINING

#### Python Developer | Gokul Infocare Pvt Ltd

March 2024 - June 2024

- Created interactive frontends and backends using **Tkinter**, **Streamlit** and **Figma** designs for company's operations.
- Built an Image-to-MCQ Pipeline that automates document digitization and assessment creation.
- Designed and implemented a Hospital Appointment System for efficient scheduling and management.
- Developed optimized web scraping scripts to collect data from multiple external websites for internal analysis.

## **PROJECTS**

# **Exalidraw - Real-Time Collaborative Drawing Platform**

- Built a full-stack **Drawing Application** with **real-time multi-user** sessions featuring infinite canvas, zoom/pan, live sync, and export tools using **WebSockets**.
- Secured API and WebSocket endpoints using **JWT authentication**, **bcrypt-hashing** and custom **middleware for authorization**.
- Managed monorepo using Turborepo and pnpm, enabling shared types and unified database access.
  Tech Stack: Next.js, TypeScript, WebSocket, PostgreSQL, Prisma, Tailwind, Turborepo, pnpm, Zod, Canvas, AWS, Docker Links: GitHub Live Demo

#### Invest IQ Financial Assistance App

- Developed a **Financial Assistance** platform with **gamified modules**, progress tracking, and reward-based quizzes.
- Integrated **OAuth**, voice/text modules, news and multilingual support via **Google Cloud APIs**.
- Built custom RAG-based **portfolio** and **trend analyzers** using **Groq API**, deployed on Hugging Face with **Gradio** and integrated a **Chatbot** to simplify financial concepts.

Tech Stack: MERN, Tailwind CSS, Python, Google Cloud, Hugging Face, Groq, LLM Links: • GitHub • Live Demo

# Java Desktop Tools Suite - Smart Text Editor & Earthquake Visualizer

- Developed a Java-based text editor applet with real-time spellcheck, autocorrect, autocomplete and Flesch Index.
- Built a modular Earthquake Monitoring applet with seismic map, city proximity and airport visualization.
  Tech Stack: Java, Java Applets, Swing, OOP, GeoJSON, DSA Links: <u>Text Editor</u> <u>Earthquake Tracker</u>

## **PUBLICATIONS**

# Research Paper on Computational NeuroScience in ISBS-RMBS 2024

October 2023 - April 2024

Diagnostic Classification of ASD Improves with Dynamic Functional Connectivity (FC) of fMRI Compared to Static FC

- Conducted fMRI analysis on 112 subjects, distinguishing subjects with ASD from TD using sFC and dFC technique.
- Applied advanced methods like MLP, XGBoost and LR and achieved 88.76% accuracy on FC and 96.65% on dFC.

#### **HONOURS AND ACHIEVEMENTS**

- Specialist on Codeforces | Maximum Rating: 1471 | Highest Rank: 1111 in Codeforces Round 1034 | Profile Link
- Secured Platinum rank in Web Development Hackathon organized by Flipr.
- Launched a personal portfolio website to showcase projects, achievements, and experience —<u>SmarthSood.com</u>
- Joint Secretary of Aavaran for 2024-2025 and member of DUGC and DPGC committee.

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