DHRUV SARKAR

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EDUCATION

Degree	Institute/Board	CGPA/Percentage	Year
B.Tech in Computer Science and Engineering with specialization in Artificial Intelligence	Netaji Subhas University of Technology (NSUT), Delhi	8.70	2022 – Expected 2026
Higher Secondary Education (Class XII)	TCIS, New Delhi (CBSE)	95.60%	2020 – 2021
Secondary Education (Class X)	TCIS, New Delhi (CBSE)	95.40%	2018 – 2019

TECHNICAL SKILLS

Programming Languages : C, C++, Python
CS Fundamentals : Data Structures and Algorithms, OOP, DBMS, OS, Distributed Systems
Web Development : HTML, CSS, JavaScript, React JS, Next.js, Tailwind CSS, Node.js, Flask, REST APIs
Machine Learning : Tensorflow, scikit-learn, PyTorch, Numpy, Pandas, Optimization Algorithms
Developer Tools : Git and Github, VS Code, Postman

PERSONAL PROJECTS

- **Welth – AI Powered Budgeting and Finance** | *NextJS, Tailwind, Supabase, Shadcn, Gemini*
  - Designed and developed a full-stack web application leveraging AI for **receipt scanning, personalized budgeting, and transaction management**, enhancing user financial literacy and promoting customer obsession.
  - Engineered scalable schema using **Supabase** and integrated third-party services like **ArcJet, Prisma, Inngest** to enhance security.
  - Implemented automated email reminders for bill payments, showcasing a commitment to invent and simplify processes for improved user engagement.
- **OralCare – AI-Driven Dental Imaging Platform** | *ReactJS, Python, FastAPI, Gemini, Roboflow, Shadcn*
  - Built an end-to-end application enabling users to upload dental DICOM images, utilizing **Roboflow's detection models** for visual diagnostics, reflecting a deep customer focus.
  - Integrated **Google's Gemini API** to generate AI-based diagnostic reports and recommendations, exemplifying the principle of invent and simplify.
  - Deployed frontend on Vercel and backend on Render, ensuring seamless communication through proper CORS configurations, highlighting a commitment to delivering high-quality, scalable solutions.
- **Heart Risk Predictor : Machine Learning Application** | *Python, TensorFlow, Scikit-learn, Flask*
  - Deployed a *heart disease risk prediction system* in a team of 3 using **Machine Learning algorithms (SVM, Logistic Regression, Random Forest, KNN, NN)** and ensemble methods for enhanced performance.
  - Used a publicly available dataset with 1M+ rows and over 15 features to achieve high performance with an **Accuracy : 95.21%, Precision : 93.16%, Recall : 94.10%**.
- **Inventory Optimizer** | *Pandas, NumPy, Flask, Streamlit, React JS*
  - Built a dynamic *Inventory Optimization Application* using *Streamlit*, enabling real-time allocation of limited resources based on user-defined priorities and availability constraints.
  - Used a novel hybrid algorithm incorporating the **KOA** and **RFO** resulting in 20% performance improvements over base models.

ACHIEVEMENTS

- Achieved a Global Rank of **3490 (top 0.05%)** in **CodeForces Round 1003 (Div.4) (Feb-2025)**.
- Achieved a 5-star rating in Problem Solving and C++ programming on HackerRank.
- Solved over **400** coding problems on various platforms (Leetcode and GFG).
- Earned **NVIDIA DLI** Certification in Deep Learning Fundamentals at NSUT, optimizing a PyTorch neural network to achieve **95.35%** accuracy.

POSITION OF RESPONSIBILITY

IGTS NSUT

Co-Head, Research Department *Aug 2023 - April 2024*

- Organized engaging events focused on Game Theory in Computer Science and its real-world applications.
- Conducted research, analyzed articles and contributed to the development of Game Theory-based games.
- Increased online engagement by 100% through strategic initiatives.