Nikhil Nawani

Dehradun, Uttarakhand

EDUCATION

Graphic Era Deemed to be University, Dehradun

2022 - 2026

B. Tech - Computer Science and Engineering - CGPA - 8.75

Dehradun, Uttarakhand

COURSEWORK

DSA

• Computer Networks

• Machine Learning

• System Design

• Operating Systems

• Competitive

• DBMS

• Oops Concepts

Programming

• Software Engineering

PROJECTS

<u>Virtual Herbal Garden</u> ✓ | NextJS, ThreeJS

2025

- Led the development of a virtual medicinal garden web app using Next.js and Tailwind CSS, collaborating with a cross-functional team to deliver an engaging, responsive UI
- Coordinated the integration of 3D plant models via @react-three/fiber and three.js, utilizing server-side rendering (SSR) to improve initial 3D model load times by 30%, enhancing performance and user retention.
- Spearheaded the design and implementation of a location- and weather-aware recommendation system, aligning frontend and API teams to ensure seamless data flow and relevant suggestions.

2024

- Architected an LSTM model (TensorFlow/Keras) using 5+ years of historical data (yfinance, 1200+ data points per stock) to forecast stock price trends.
- Visualized historical stock data, feature importance, and model prediction performance using Matplotlib, Seaborn, and Plotly.
- Achieved a Root Mean Squared Error (RMSE) of 6.33 on held-out test data, demonstrating the model's predictive precision.

Task Management Application | JavaScript, Node.js, React, Express, API

2024

- Developed a responsive frontend UI using React (10 components), implementing 3+ core features: task creation, multi-criteria filtering (e.g., by status, priority), and real-time task updates via WebSockets.
- Designed and implemented the back-end API using Node.js and Express.js, ensuring secure user authentication and data persistence with MongoDB.

Malware Detection 🗷 | Random Forest, Data Visualization

2024

- Engineered lexical features (domain, path, query parameters, length) from a dataset of 650k+ URLs for 4-class malware type classification (benign, malicious, phishing, defacement).
- Engineered 15+ numerical features using efficient Polars/NumPy processing and implemented a Random Forest classifier for malicious URL detection, visualizing key performance metrics via Plotly.
- Achieved 96.65% accuracy on the test set, validating performance rigorously with confusion matrices.

TECHNICAL SKILLS

Languages: C++, C, Java, Python, JavaScript

Database: SQL, MySQL, Oracle SQL, MongoDB

Web Technologies: HTML5, CSS3, React, Express, NodeJS, NEXT15, Bootstrap, Tailwind, Flask, Selenium Developer Tools: Github, VS Code, Postman, MongoDB Atlas, Eclipse, Jupyter Notebook, MATLAB, LATEX. Machine Learning: Tensorflow, Pandas, PyTorch, Keras, scikit-learn, OpenCV, Huggingface, Fine-Tuning

CODING PLATFORMS

- Solved 600+ LeetCode algorithm problems, achieving a global ranking within the top 18%.
- Practiced on compititive programming on Codeforces, solving 150+ problems (Rating: 1192).

EXTRACURRICULAR

- Finalist in Smart India Hackathon 2024: Selected from 400,000+ registered students, built an interactive Virtual Herbal Garden using Three.js and Next.js featuring 3D models, detailed plant info, multimedia, search, and virtual tours.
- Microsoft IDC SEFA Program 2024: Attended 3+ workshops held by Microsoft on Agile development, Azure, and more. Constructed a user journey map for food delivery services using FigJam.