Neha Prabhu

github.com/NehaP1706

Email: nehaprabhup17@gmail.com
Mobile: +91-9980830164

EDUCATION

- **International Institute of Information Technology (IIIT), Hyderabad** — Hyderabad, India
  B.Tech in Computer Science and Engineering; CGPA: 9.78 — *July 2024 – May 2028 (Expected)*

PROJECTS

- **Group Trip & Expense Planner** — Full-Stack Web Dev
  FastAPI, MySQL, AI Integration — *2024*
  - Developed a comprehensive trip planning platform using **FastAPI** and a **MySQL** relational database.
  - Integrated an **AI-powered chatbot** to provide real-time assistance and an interactive map service for itinerary planning.
  - Implemented user-friendly services for expense splitting to optimize cost distribution among large travel groups.

- **Distributed Network File System (NFS)** — Systems Programming
  C, Distributed Systems, Data Structures — *2025*
  - Engineered a high-performance distributed file-sharing system utilizing a **Trie** data structure for $O(L)$ file lookup.
  - Reduced network latency by integrating an **LRU caching mechanism** to store frequently accessed file metadata.
  - Built a custom Vim-like text editor within the system to enable real-time multi-user file manipulation.

- **Edge Orchestrator** — Edge AI & ML
  Reinforcement Learning, Qualcomm NPU, Python — *2025*
  - Developed a multi-agentic system using **Reinforcement Learning** to orchestrate compute across edge devices.
  - Optimized end-to-end latency by dynamically allocating tasks based on real-time network conditions.
  - Deployed Generative AI models (Image, Audio, Text) on **Qualcomm QIDK** devices with NPU acceleration.

- **Oxy - Custom Shell & Network Tool** — Operating Systems
  C, Unix System Calls, TCP/IP — *2025*
  - Built a custom command-line interpreter in **C** utilizing low-level Unix system calls (fork, exec, wait).
  - Implemented a **TCP/IP** networking layer to enable secure terminal-to-terminal messaging and file transmission.
  - Designed a packet sniffing tool with custom filters to inspect informatics across OSI model layers.

- **Patient Health Monitoring Dashboard**: IoT sensor-integrated dashboard monitoring heart rate, BP, and gyroscopic movements for fall detection.

EXPERIENCE

- **TP Vision** — Bengaluru, India
  Software Engineering Intern — *May 2024 – July 2024*
  - Automated daily software package updates using **Python** scripts, reducing manual intervention by 40%.

- **Finlatics** — Remote
  Data Science Trainee — *2025*
  - Executed data analytics projects focusing on market trends using Pandas and Scikit-learn.
  - Developed predictive models to analyze Banking datasets with high accuracy.

ACHIEVEMENTS

- **Dean's List (2 Semesters)**: Awarded for being in the top 5% of the batch for academic performance at IIIT-H.
- **JEE Advanced 2024**: Secured **AIR 2828** (Top 1% of aspirants nationwide).
- **JEE Mains 2024**: Secured **AIR 1512** with 99.9 percentile.
- **KCET 2024**: Achieved **Rank 33** among 300,000+ candidates.
- **Class XII (Karnataka Board)**: Secured **Rank 5** in the state with **99.00%**.

SKILLS

- **Languages**: C++, C, Python, SQL, Bash
- **Technologies**: FastAPI, MySQL, Git, Docker, Linux Systems
- **Areas of Interest**: Operating Systems, Distributed Systems, Edge AI, MLOps

EXTRA-CURRICULARS

- **Classical Arts**: Diploma holder in Bharatanatyam; 5-year entrant in Fine Arts program.