Aman Umrao

📞 +91 9755857161 ✉ amanraox@gmail.com 🌐 amanraox.me 💼 linkedin.com/in/amanraox ⚙ github.com/amanraox

Education

Shri Shankaracharya Technical Campus, Bhilai   **August 2021 – June 2025**
Bachelor of Technology in Information Technology   *CGPA 8.05*

Relevant Coursework

- Data Structures
- Algorithms Analysis
- Operating System
- Mathematics for CSE
- Artificial Intelligence
- Database Management
- Computer Network
- OOPs

Experience

Languify AI   **July 2024 – September 2024**
Software Engineer Intern   *Remote*

- Contributed to a live project in language modeling, implementing advanced techniques, and contributing to a **10% reduction** in **language processing time** improving ASR system **efficiency**.
- Led the development of an innovative Automatic Speech Recognition (ASR) system, achieving **significant improvement** in speech-to-text **accuracy**, enhancing the platform's performance.
- Utilized TensorFlow and PyTorch for model training and evaluation, ensuring robustness in various acoustic environments and achieving a **15% reduction** in **error rates**.
- Created scripts to preprocess audio data and aggregate transcriptions, increasing **data processing efficiency** by **1.5x**.

Projects

DDOS Attack Detection and Mitigation using ML | *Python, Mininet, Ryu Controller, Linux* ⚙ **GitHub** **April 2024**

- Implemented Random Forest classifier **Machine Learning** algorithm to classify attacks and legitimate traffic with **97% accuracy** and detected DDoS attacks within **2 seconds** using machine learning. Reducing **network downtime**.
- Configured the network and wrote custom topology bash and **python scripts** to enable communication between hosts.
- Used Debian OS to run program on **Linux** environment for **testing** the system in SDN (**Software Defined Network**).

Live Docs | *Next.js, TypeScript, Tailwind CSS, Node.js, Liveblocks, Clerk-Auth* ⧉ **Live** - ⚙ **GitHub** **March 2023**

- Engineered a real-time collaborative document editing platform. Styled the UI with Tailwind CSS and ShadCN, enhancing user **productivity by 30%** with instant updates and **low-latency synchronization**.
- Employed Lexical Editor by Meta for rich text editing capabilities, achieving a **50% reduction** in update delays.
- Deployed Node.js as the backend and integrated Clerk-Auth for secure real-time **authentication**, resulting **improvements** in document loading and saves time.

Cognitive Document LLM Aggregator | *Python, LangChain, Gemini Pro, Streamlit* ⚙ **GitHub** **December 2023**

- Designed an interactive document aggregation platform for improving data retrieval **efficiency by 2x**.
- Integrated Gemini Pro and Pinecone for advanced information retrieval and high-performance vector search, resulting in a **notably reduction** in **query response time** and a **40% increase** in document analysis accuracy.
- Leveraged LangChain to streamline the **natural language processing** pipeline, increasing processing **speed by 25%**.

Other Noteworthy Projects- ZED Type ⧉ **Live** ⚙ **GitHub** | Share Bits Wirelessly ⧉ **Live** ⚙ **GitHub** **2022**

Technical Skills

Languages: Proficient: C/C++, Python, SQL, HTML/CSS, JavaScript — Familiar: JAVA, Bash/shell scripting
Utilities: VS Code, Unix/Linux, Vim, Github, WordPress, Docker, Sublime Text, Postman, Yarn, AWS
Technologies/Frameworks: ReactJS, ExpressJS, NodeJS, NextJS, MongoDB, Firebase, Django, Selenium, Git

Achievements

- **ACM ICPC Asia West Regionalist** 2023 (**Rank 201** out of 5000+ teams)
- CodeChef **3 Star** Max. Rating [1645]
- Codeforces pupil Max. Rating [1215]
- GeekForGeeks Institute **Rank 1**
- HackerRank **6 star** in problem solving
- **AIR 91 | Global Rank 101**/32181 in Starters 129
- Qualified **Meta HackerCup** Round 2 out of 21k+
- **1000+ problems solved** on various coding platforms [**Leetcode**, **CodeChef**, **Codeforces, GFG, HackerRank**]

Certifications

- AWS Cloud Solutions Architect Specialization
- Google IT Automation with Python Professional Certificate
- Google Cybersecurity Professional Certificate