

Aman Umrao

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Education

Shri Shankaracharya Technical Campus

August 2021 – July 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
- Intro to ML

Experience

Languify AI

June 2024 – July 2024

Software Engineer Intern

Remote

- Implemented advanced techniques in a live language modeling project, reducing language processing time by 10% and improving ASR system **efficiency** by **20%**.
- Developed an innovative Automatic Speech Recognition (ASR) system, improving speech-to-text **accuracy** by **20%** and enhancing platform performance.
- Used TensorFlow and PyTorch for model training and evaluation, ensuring robustness in various acoustic environments and **reducing error rates** by **15%**.
- Created scripts to preprocess audio data and aggregate transcriptions, increasing **data processing** efficiency by **40%**.

Projects

DDOS Attack Detection and Mitigation using ML | Python, Mininet, Ryu Controller, Linux - 🏠 [GitHub](#) April 2024

- Implemented Random Forest classifier ML algorithm to classify attacks and legitimate traffic with **97% accuracy** and detected DDoS attacks within 2 seconds using machine learning. Reducing **network downtime** by **80%**.
- Configured the network and wrote custom topology bash and **python scripts** to enable communication between hosts.
- Provisioned a Debian virtual machine to run on a **Linux** environment for **testing** the system in an SDN (**Software Defined Network**).

Live Docs | React.js, Next.js, TypeScript, Tailwind CSS, Node.js, Liveblocks-Auth, ShadCN - 🏠 [GitHub](#) December 2023

- Engineered a real-time collaborative document editing platform. Styled the UI with Tailwind CSS and ShadCN, enhancing user **productivity** by **40%** with instant updates and low-latency synchronization.
- Employed Lexical Editor for rich text editing capabilities, achieving a **30% reduction** in update delays.
- Deployed Node.js as the backend and integrated Liveblocks for secure real-time **authentication**, resulting in **25% improvement** in document load and save times.

Cognitive Document LLM Aggregator | Python, LangChain, Gemini Pro, Pinecone - 🏠 [GitHub](#)

March 2023

- Designed an interactive document aggregation platform for improving data retrieval **efficiency** by **35%**.
- Integrated Gemini Pro and Pinecone for advanced information retrieval and high-performance vector search, resulting in a **30% 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%**.

Technical Skills

Languages: Proficient: C++, Python, HTML/CSS, JavaScript, Bash/shell scripting — Familiar: C, JAVA, SQL, LaTeX

Utilities: VS Code, Unix/Linux, Vim, Github, WordPress, Docker, Sublime Text, Postman, Yarn, AWS

Technologies/Frameworks: ReactJS, ExpressJS, NodeJS, MongoDB, Firebase, Django, Selenium, Git

Achievements

- **ACM ICPC Asia West Regionalist 2023 (Rank 201 out of 5000+ teams)**
- CodeChef **3 Star** Max. Rating [1645]
- GeekForGeeks Institute **Rank 1**
- Secured **AIR 91** and **Global rank 101** out of 32100+, STARTERS 129
- **1000+ problems solved** on various coding platforms [[Leetcode](#), [CodeChef](#), [Codeforces](#), [GFG](#), [CSES](#)]

Certifications

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