Tanya Chaturvedi

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EDUCATION

Vellore Institute of Technology   Bhopal, MP
B.Tech in Electronics and Communication with spec. in AI and Cybernetics - 8.05 CGPA   *October 2022 – July 2026*

Christ Church Girl's S.S. School   Jabalpur,M.P.
Class XII - 85%   *April 2020 – May 2021*

Christ Church Girl's S.S. School   Jabalpur,M.P.
Class X - 90%   *April 2018 – May 2019*

TECHNICAL SKILLS

C++, GoLang, JavaScript, Python, React.js, Next.js, SQL, Machine Learning, Git

CERTIFICATES

- Neural Networks and Deep Learning- DeepLearning.AI — *November 2024*

PROJECTS

Swaasthya | *Go, Kafka, Redis, PostgreSQL, Docker, Kubernetes*   *October 2024 - April 2024*

- Designed and deployed a scalable hospital management system with region-based database sharding, optimizing patient record retrieval speed by 40%
- Built a role-based 2FA authentication system, enhancing security for hospital staff and administrators.
- Developed Redis-backed smart queue management to optimize patient flow, reducing wait times by 25% and enhancing appointment scheduling.
- Integrated Kafka for asynchronous batch processing, preventing database overload and enabling real-time updates across multiple hospital branches.
- Deployed a microservices architecture with Kubernetes for fault tolerance and scalability, ensuring 99.9% uptime under high traffic loads.

DebateMate | *FastAPI, LangChain, OpenAI GPT, Llama3*   *May 2023 - July 2023*

- Engineered an AI-powered debate analysis system, processing 200+ debate topics daily with near-instant feedback and 99.9% uptime.
- Integrated Llama3 for enhanced NLP processing, increasing detection accuracy by 12% and reducing false positives by 15%
- Implemented parallel processing techniques, enabling seamless argument retrieval for 10,000+ active debates monthly.
- Optimized response pipeline with asynchronous task execution and caching, cutting latency by 40% and improving user engagement by 25%.
- Developed an advanced NLP fallacy detection model achieving 85% accuracy, identifying 10+ logical fallacies such as Straw Man and False Dilemma.

ACHIEVEMENTS

Leetcode: Rank 1,130,079 | Contest Rating: 1731
GeeksForGeeks: Rating 1681 | Secured a global rank of 7,887
Smart India Hackathon 2024 : Ranked second out of 400+ teams in VIT Bhopal's Smart India Hackathon 2024 internal round, securing national-level selection

EXTRA CURRICULARS

Joint Secretary: BashCraft, VIT Bhopal
Technical Team Member: IOT Club, VIT Bhopal