

Undergraduate CS student focused on research-driven engineering. I spend my time implementing papers, writing technical guides that make sense of complex topics, and building robust systems. I'm a big believer in rigorous documentation and creating software that's as consistent as the research it's based on.

EDUCATION

<div></div> B.Tech Computer Science (AI & ML)	Sep 2023 – 2027 (Expected)
<ul style="list-style-type: none">Ranked #1 in AIML specialization batch; top scholar in the B.Tech CSE program (≈300+ students).Current CGPA: 9.49/10.00 Highest SGPA: 9.92/10.00Coursework: Advanced ML, NLP, Probability & Statistics, Linear Algebra, Computer Networks, Operating Systems, DBMS, Discrete Mathematics, Design & Analysis of Algorithms	

RESEARCH

Emotion & Sentiment Classification Python, scikit-learn, TF-IDF, SMOTE/ADASYN, TensorFlow/Keras, PyTorch	Link Summer – Fall 2025
<ul style="list-style-type: none">Built and benchmarked a progression of models from classical ML baselines to deep sequence models; achieved best performance (93% accuracy) with BiLSTM + custom attention.Used pretrained embeddings (GloVe/Word2Vec) and systematic evaluation (per-class metrics, confusion matrices) to quantify tradeoffs in context awareness.Focused on imbalance handling and interpretability via attention scores and error analysis.	
Impact of Network Partition Attacks on Blockchain Consensus Python, NetworkX, NumPy, Matplotlib	Link Winter 2025 – Present
<ul style="list-style-type: none">Studying forks, partitions, intentional forks, and propagation behavior through a small-scale simulator and literature review.Measuring fork rates, orphaned blocks, reorg behavior, and chain rejoin dynamics under controlled partition scenarios.	
TCP vs UDP in Real-Time Online Games Networking, latency/jitter measurement, packet loss tolerance	Link Winter 2025 – Present
<ul style="list-style-type: none">Investigating transport-layer tradeoffs in competitive multiplayer games (e.g., Valorant/CS2): latency, reliability, jitter, and packet-loss tolerance.Studying how games build custom reliability layers, lag compensation, and state synchronization on top of UDP.	

PROJECTS

MyGPU Python, Click, Rich, FastAPI, NVML (nvidia-ml-py)	Link Fall 2025
<ul style="list-style-type: none">Built a lightweight local GPU monitoring + benchmarking utility with both CLI and Web dashboard; designed for privacy-first local execution.Added admin-centric controls such as VRAM enforcement (auto-terminate over-limit processes) and watchlists; optional CUDA benchmarking (CuPy/PyTorch) support.	
GitHub Translation Pipeline GitHub Actions, Python, Bash, model caching, HuggingFace	Link Summer 2025
<ul style="list-style-type: none">Built a privacy-first CI pipeline that runs fully on GitHub runners (no API keys), generating 20+ README translations per repository.Sped up runs via parallel job execution and model-weight caching; added post-processing + structural validation to preserve code blocks and markdown structure.	
Streax Bot Reddit Hackathon React, Vite, Tailwind, Node, Firestore, Gemini	Link Fall 2025
<ul style="list-style-type: none">Built for the Reddit's Devvit Hackathon: a topic-based quiz experience with daily play limits and leaderboards to drive repeat engagement.Designed for non-repetitive content and responsiveness using caching strategies and LLM-generated question pipelines.	

OPEN SOURCE

Core Contributor / Maintainer waka-readme-stats (4k+ stars) Python, CI/CD, Docker, Visualization Libraries	Link 2025 – Present
<ul style="list-style-type: none">Contributed the README translation pipeline and helped operationalize privacy-first translations at scale.Unblocked stalled CI workflows/PRs by fixing permissions and workflow strategy; resolved multiple bugs and improved maintainer review throughput.Proposed an alternate PR review strategy and improved CI reliability using mock data for safer previews and faster iteration.	

COMPETITIONS

NES Innovation Award 2025 National Competition	2025 - Present
<ul style="list-style-type: none">Leading a 5-member team for this national competition; short-listed into the top-50 qualifiers.Building a nation-wide client-server based network for information dispersal through multiple end-point modes.	
<div></div> Hackathon Healthcare Track (3rd Place) Python, Flask, Data Curation, Finance	Feb 2024
<ul style="list-style-type: none">Led a team of 4 members which developed a end-to-end ML-powered WebApp prototype in 48h.Traditional medicine(Ayurveda) based diagnosis and treatment recommendation system; achieving 92% accuracy scores.Data collection(Web scraping+Synthetic Data Generation), Model training(Random Forest), evaluation, and deployment.	
<div></div> Hackathon Special Recognition Python, Pandas, XGBoost/LightGBM, SHAP	Fall 2024
<ul style="list-style-type: none">Led a team of 5 members, and got special recognition by judges for methodology, execution and presentation.Built a LightGBM stacking classifier on 20K+ loan records;Achieved 92.8% accuracy on classifying potential clients for the bank's private loan offering services	