

Allen George Ajith

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EDUCATION

New York University, Courant Institute of Mathematical Sciences <i>MS in Computer Science</i> Relevant Courses: Deep Learning (Prof. Yann LeCun), Natural Language Understanding and Computational Semantics (Prof. Tal Linzen), Computer Vision for Science and Engineering (Prof. David Fouhey)	2024 – 2026 New York, NY
Cochin University of Science and Technology <i>B.Tech. in Computer Science and Engineering</i> GPA: 9.24/10 Relevant Courses: Machine Learning, Algorithms & Data Structures, Linear Algebra & Calculus II, Operating Systems	2019 – 2023 Kerala, India

SKILLS

Languages: Python, SQL, C++ **ML/AI:** PyTorch, TensorFlow, scikit-learn, HuggingFace Transformers, LangChain
Tools & Platforms: GCP, Docker, Kubernetes, BigQuery, PostgreSQL, pandas, FastAPI, Git, FedML

EXPERIENCE

Machine Learning Intern <i>ERAAS Health</i> <ul style="list-style-type: none">Engineered heat-health risk prediction system with 91.4% accuracy using BigQuery ML, scikit-learn, and Google Cloud AutoML on 100K+ patient records, integrating CDC Heat-Health Index and weather data to enable proactive intervention strategies.Developed proof-of-concept for voice agent infrastructure to enable automated patient outreach before extreme weather emergencies, featuring LLM guardrails, multi-provider TTS, and asynchronous processing.	Jun. 2025 – Aug. 2025 Hoboken, NJ
Research Assistant <i>NYU, Courant Institute of Mathematical Sciences</i> <ul style="list-style-type: none">Building ensemble forex trading systems combining deep learning models with LLM-based signal extraction for emerging market FX prediction under Dr. Dennis E. Shasha. Implementing fine-tuning, knowledge distillation, prompt engineering, and temporal signal decay analysis to optimize news-to-signal timing.	Aug. 2024 – Present New York, NY
AI Research Intern <i>Hitachi Solutions India</i> <ul style="list-style-type: none">Implemented cross-silo federated learning using FedML framework with modified FedAvg algorithm, epsilon differential privacy, and 8-bit gradient quantization, achieving 12.7% faster convergence over baseline.	Jun. 2022 – Dec. 2022 Chennai, India

SELECTED PUBLICATIONS

Ajith, A. G. et al., <u>Exploratory Analysis of Link Prediction and Sampling of Social Networks</u> <i>International Conference on Green Energy, Computing and Intelligent Technology</i>	Jul. 2023
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PROJECTS

Blockchain E-Tender System <i>Solidity, Circom, Javascript</i> <ul style="list-style-type: none">Architected a decentralized Sealed Bid Tender system on Polygon Network using Zero Knowledge Proof circuits and Solidity smart contracts, featuring automated winner selection and real-time bid tracking user interface.	Dec. 2022 – Mar. 2023
CMLFormer <i>PyTorch, HuggingFace Transformers</i> <ul style="list-style-type: none">Co-developed a dual-decoder Transformer with synchronized cross-attention for code-mixed Hinglish text, implementing novel pretraining objectives.	Jan. 2025 – May 2025

CERTIFICATIONS

Google Cloud Skills Badges: Data Engineering, DevOps, Machine Learning
Toastmaster's International: Competent Communicator, Competent Leader

LEADERSHIP AND VOLUNTEERING

Google Developer Students Club, CUSAT <i>Team Lead</i> <ul style="list-style-type: none">Guided a community of 200+ students, organizing weekly technical workshops, hackathons, and mentorship programs in web development, ML, and cloud computing.	May 2021 – Jul. 2022
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