

Allen George Ajith

+1 347-458-5400 | allen.ajith@nyu.edu | linkedin.com/allen-g | allen-ajith.github.io

EDUCATION

New York University, Courant Institute of Mathematical Sciences

2024 – 2026

MS in Computer Science

New York, NY

Relevant Courses: Deep Learning (by [Prof. Yann LeCun](#)), Natural Language Understanding and Computational Semantics, Computer Vision

Cochin University of Science and Technology

2019 – 2023

B.Tech. in Computer Science and Engineering - GPA: 9.24/10

Kerala, India

Relevant Courses: Machine Learning, Algorithms & Data Structures, Linear Algebra & Calculus II, Operating Systems

SKILLS

Programming & Frameworks: Python, PyTorch, TensorFlow, scikit-learn, Hugging Face, C++, SQL, Solidity

Tools & Platforms: Docker, Kubernetes, GCP, Azure, FedML, Git, NumPy, pandas, FastAPI

EXPERIENCE

Research Assistant

Aug. 2024 – Present

NYU, Courant Institute of Mathematical Sciences

New York, NY

- Working with [Dr. Dennis E. Shasha](#) and group to develop a multi-model prediction system for Foreign exchange trading by ensembling Temporal ConvNets, BiLSTM-Attention, NBEATS, and Transformer architectures.
- Building a financial news sentiment analysis system using LLMs with parameter-efficient fine-tuning (PEFT) and knowledge distillation for real-time trading signal generation

AI Intern

Jun. 2022 – Dec. 2022

Hitachi Solutions India Pvt. Ltd.

Chennai, India

- Implemented distributed ML systems using FedML, achieving **12.7%** faster loss convergence through hybrid FedAvg algorithms and Epsilon Differential Privacy mechanisms) with **95.8%** model accuracy retention on CIFAR-10.
- Designed Cross-Silo FL architecture for 6 organizations, reducing validation loss by **18.3%** while maintaining data locality through **8-bit gradient quantization** and SHA-256 encrypted parameter exchanges.

SELECTED PUBLICATIONS

Ajith, A. G., et al., Exploratory Analysis of Link Prediction and Sampling of Social Networks

Jul. 2023

The International Conference on Green Energy, Computing and Intelligent Technology

PROJECTS

Blockchain E-Tender System | *Solidity, Circom, Javascript*

Dec. 2022 – Mar. 2023

- 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.

Speech2Emotion | *Python, Flask, TensorFlow*

Jan. 2022 – Apr. 2022

- Engineered an end-to-end emotion classification system with custom CNN architecture and MFCC feature extraction, achieving **11%** accuracy improvement over VGG-16 baseline.

LEADERSHIP AND VOLUNTEERING

Google Developer Students Club, CUSAT | *Team Lead*

May 2021 – Jul. 2022

- Guided a community of **200+** students, organizing weekly technical workshops, hackathons, and mentorship programs in web development, ML, and cloud computing.
- Established project-based learning tracks, peer programming initiatives, and industry connect events, resulting in **30%** increase in student participation.

CERTIFICATIONS

Google Cloud Skills: Data Engineering, DevOps, Machine Learning

Toastmaster's International: Competent Communicator, Competent Leader