Adhitya Thirumala

EDUCATION

University of Illinois Urbana-Champaign

Major: Computer Science + Linguistics — Minor: Mathematics

Current — May 2027 *GPA*: 3.82

Fox Chapel Area High School

EXPERIENCE

Digital Main | Machine Learning Intern

May 2025 — August 2025

- Built an asynchronous multi-agent research automation system in Python, orchestrating complex query decomposition and parallel web research using LangGraph and Gemini LLM
- Utilized FastAPI to create customer-facing production backend API to stream research process to web frontend using Server Sent Events (SSE)
- · Implemented automated agentic source validation, while integrating images and generating charts or tables into final artifact

Assocation for Computing Machinery at Illinois | Treasurer

March 2025 — Present

- Managed over \$350k of organizational funds for largest CS student organization at Illinois with 26 internal committees and special interest groups comprising of over 1k total members
- Migrated accounting and credit card platforms from BILL.com to Ramp to obtain credit limit increase of 800% and to streamline reimbursements, onboarding (using Single Sign On via Microsoft Entra ID), and reporting workflows, saving over 4+ hours per month
- Served as liaison between organization and Siebel School of Computer Science staff to coordinate usage of department-provisioned funds for ACM events such as biannual open house (500+ attendees) and various social events

Freelance | Private Policy Debate Coach

August 2024 — Present

- Mentored nine students from under-resourced institutions nationwide, identified through extensive high school competitive debate networking, providing strategic coaching and performance enhancement
- \bullet Considered past student performances at over 100+ rounds to use data-driven strategies to increase student winrate by over 120%
- Coached student to tournament victory at University of Michigan Round Robin Invitational, successfully competing solo against established partnerships in premier national circuit event

Research

Clickbait Classification and Spoiling Using Natural Language Processing (arXiv)

Oct 2022 — May 2023

- Developed NLP models to classify and spoil clickbait using LLMs and SLM transformer-based models
- Results submitted to The 17th International Workshop on Semantic Evaluation: Toronto, Canada 2023
- Mentored by Dr. Elisa Ferracane

Extractive Question Answering on Queries in Hindi and Tamil (arXiv)

Oct 2021 — May 2022

- \bullet Built QA models improving performance by 20% over baseline in Hindi and Tamil due to modified RoBERTa tokenizer
- Received 26th Annual Carnegie Science Award given to 12 top scientists, entrepreneurs, innovators and educators across the city of Pittsburgh
- Mentored by Dr. Elisa Ferracane

SKILLS

Languages: C++, Rust, C, Python, Java, HTML, Bash, LATEX, SQL, Go, Lua, Javascript, Typescript, CSS

Tools: Linux, Git, GitHub, Github Actions, Vim, Huggingface, Maven, Gradle, SQlite, Docker, PostgreSQL, Vercel, Amazon Web Services (AWS), Oracle Cloud, Google Cloud Platform, CMake

Libraries: pandas, NumPy, Matplotlib, Tensorflow, pyTorch, Sci-Kit Learn, Swing (Java), Spring (Java), Next.JS, React, Flask, LangChain, LangGraph, FastAPI

Relevant Coursework

Computer Science: CS 374: Algorithms and Models of Computation, CS 225: Data Structures, CS 233: Computer Architecture, CS 124/128: Introduction to Computer Science I and II

Mathematics and Statistics: Math 416H: Honors Abstract Linear Algebra, STAT 400: Statistics and Probability I, MATH 314: Introduction to Higher Level Math, MATH 241: Multivariable Calculus, CS 173: Discrete Structures

ACTIVITIES

Clubs: Association for Computing Machinery at Illinois, GNU/Linux User Group