Adhitya Thirumala

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EDUCATION

University of Illinois Urbana-Champaign Current — May 2027
Major: Computer Science + Linguistics — Minor: Mathematics *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 academic institutions nationwide, identified through extensive high school competitive debate networking, providing strategic coaching and performance enhancement
- Considered past 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 [(arXiv)](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 QA in Hindi and Tamil [(arXiv)](arXiv) Oct 2021 — May 2022
- 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
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