Sathvika Anand

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Education

Intended Master of Science in Computer Science, starting Fall 2024
Harvey Mudd College *Claremont, CA*
GPA 3.76
B.S. Computer Science, expected graduation in May 2024
Relevant coursework:
Algorithms, Natural Language Processing (NLP), Linguistics, Machine Learning with Neural Signals, Data Structures and Program Development, Computability and Logic, Computer Systems, Discrete Mathematics, Linear Algebra, Statistics and Probability, Programming Languages, User Centered Design & Research, System Security
Lynbrook High School, GPA 4.0

Honors

Harvey Mudd College Dean's List (All Semesters), Lynbrook High School Valedictorian, National Merit Scholarship Finalist

Skills

Programming Languages: Proficient in Java, Python, R, C, C++, C#, Racket, Haskell
Languages: English, Tamil, Spanish

Work Experience

Summer 2023

Microsoft Corporation *Redmond, WA*
Software Engineering Intern, Azure Networking

- Designed and developed an optimized, user-centric AI-powered assistant that utilized natural language interactions to retrieve and present relevant knowledge regarding documentation from internal repositories.
- Established a dynamic workflow to consistently update the assistant's knowledge base, ensuring current and precise responses in alignment with evolving resources.
- Employed machine learning models and NLP techniques, including retrieval augmented generation and prompt engineering, to enhance performance and ensure assistant's adaptability to changes in training data.
- Successfully tested and validated the tool using real queries, and subsequently deployed it for the team's use.

Summer 2022

Pure Storage, Inc. *Mountain View, CA*
Software Engineering Intern, Firmware Team

- Implemented an API to emulate hardware functionality in a software-only environment.
- Developed a multi-threaded C program within a Linux environment, leveraging inter-process communication methodologies such as POSIX message queues and shared memory.
- Programmed in Python as well as Cython to seamlessly integrate C code with an established codebase.

Clinic Program

Fall 2023

NASA Ames *Claremont, CA*

- Collaborated with NASA engineers through Harvey Mudd's senior capstone class
- Designed, documented, and prototyped a software framework for evaluating speech-to-text (STT) systems on a variety of metrics to assess which systems are best suited for NASA's needs.
- Coded in C# and Python to evaluate STT APIs on a variety of language processing metrics, including WER, MER, WIL, and more.

Research

Fall 2023

Harvey Mudd College
Student Researcher, EconText Lab, in collaboration with Pomona College *Claremont, CA*

- Utilized computational techniques, including sentiment analysis, vagueness scores, and regression models, to analyze a substantial Twitter data corpus comprising of around one million tweets from corporate accounts.
- Uncovered relationships between Corporate Social Responsibility (CSR) communication on Twitter and actual Environmental, Social, and Governance (ESG) efforts, leveraging insights from the data analysis.
- This work is in poster form, with a paper in progress.

Spring 2023–Present

Student Researcher, WHISK Lab, Department of Computer Science *Claremont, CA*

- Collaborated with Prof. Xanda Schofield and the Data-Sitters Club team at Stanford to analyze the Babysitters Club book series using NLP techniques to study language found in the literature. This work was posted online here.
- Employed topic models to process over 100 books, uncovering trends both across books and chapters.

Spring 2021–Spring 2022

Student Researcher, Biophotonics Lab, Department of Engineering *Claremont, CA*

- Investigated the effectiveness of Fourier Ptychographic Microscopy (FPM), a computational resolution-enhancement technique, in overcoming inherent physical limitations of optics systems.
- Improved the FPM algorithm by coding and testing two alternative reconstruction techniques.

Other

Fall 2021–Present

Grader/Tutor
Department of Computer Science *Claremont, CA*

- Tutored students enrolled in Natural Language Processing (Spring 2024) Algorithms (Spring 2023 – Fall 2023), Computability and Logic (Fall 2022 – Spring 2023), Intro to Climate Change (Fall 2021), Intro to Computer Science (Fall 2021), helping explain difficult concepts.

Fall 2020–Present

South Asian Student Association (SASA) *Claremont, CA*
President

- Organized cultural events, workshops, and social networking events as president of SASA, the largest South Asian organization across the Claremont Colleges.

Fall 2020–Present

Leadership Team Member of Harvey Mudd WACM (Women of the Association of Computing Machinery)