

ADITYA MAJUMDAR

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EDUCATION

Pennsylvania State University

Bachelor of Science – Computer Science

Minor: Engineering Leadership Development

Expected Graduation Spring 2024

GPA: 3.86

RESEARCH EXPERIENCE

Responsible AI for Social Emancipation Lab

[September 2023 - Present]

Undergraduate Researcher

- Implemented fine-tuning methodologies for large language models, including GPT 2, with a focus on code-mixed languages, utilizing the Hugging Face framework.
- Developed Python scripts to pre-process data for both training and testing sets, ensuring the quality and relevance of input data for language model training.
- Leveraged Google Cloud Platform to deploy and optimize AI models, contributing to streamlined and efficient execution of the developed models.

DAAD RISE Scholar

[May - August 2023]

WatchPlant: Research Intern

- Devised plotting scripts utilizing Matplotlib, Pandas, and NumPy libraries for time series analysis.
- Pioneered the creation and production of 3D models for multiple sensors, subsequently constructing three distinct experimental assemblies.
- Engineered a sophisticated synchronized system employing the Hub-and-Spoke architecture, integrating Lsyncd and Rsync for seamless coordination.
- Applied signal processing techniques, incorporating a lowpass Butterworth filter for precise data refinement.

WORK EXPERIENCE

College of Engineering

[January 2022 - Present]

Learning Assistant

- Assisted in course development and design using the Canvas LMS to ensure updated and accurate course content to meet learning objectives and clear organizational goals for a flipped course.
- Graded and gave timely feedback on assignments for a class of 50 students.
- Coached a diverse group of 50 students on project deliverables to foster skill development and meeting assignment deliverables.
- Maintained meticulous records, ensuring accurate and up-to-date documentation of student progress.

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[May - July 2022]

Web Development: Software Engineering Intern

- Created React.js and CSS scripts to display the homepage of the company's website and chatbot.
- Completed 15 courses on software development for HTML, CSS, JavaScript, React.js, Firebase, NPM, and bootstrap.
- Organized weekly manager meetings to present updates regarding the website's progress by utilizing OKRs, Gantt charts and PowerPoint.

PROGRAMMING SKILLS

- Languages: Python, C, Java, JavaScript, HTML, CSS, SQL, Scheme
- Libraries: Numpy, PyTorch, Matplotlib, Pandas, NLTK, Scikit-learn
- Frameworks: React, Bootstrap, Google Firebase

VOLUNTEERING EXPERIENCE

Camp Kesem Central PA

[September 2021 - Present]

Camp Counsellor

- Completed training on providing emotional support programming to children aged five to eighteen affected by their parent's cancer.
- Conducted training for counsellors on Diversity, Equity, and Inclusion to foster a safe and inclusive environment for the campers.
- Oversaw and facilitated the emotional programming workshops for the teen campers.