

Arshiya Gupta

Contact: (447) 902-1772 | Email: arshiyagupta078@gmail.com | LinkedIn: arshiya-gupta

EDUCATION

University of Illinois at Urbana-Champaign

Expected May 2025

Bachelor of Science in Computer Science, Minor in Statistics

(James Scholar, Dean's List) GPA: 3.97/4.00

Programming Languages: Java, Python, C++, Rust, Kotlin, JavaScript, HTML, CSS, MATLAB, MySQL, LaTeX

Libraries: NumPy, Pandas, Matplotlib, PyTorch, SciKit

PROJECTS

Counterfactual Regret Minimization (CFR)

July 2023 - Present

Independent project

- Conducting extensive research on games, particularly Poker, to gain insight into game theory including Nash Equilibria and optimal strategies essential for designing effective Poker AI solutions
- Conceptualizing and implementing a robust data preparation system to pre-process data efficiently
- Studying and defining performance metrics, including win rates, regrets profits and exploitability so as to train model

Implementation of Naïve Bayes Theorem Algorithm in Rust

March 2023 - May

2023

Honors program

- Developed a tokenized model of the Naïve Bayes classifier, and trained the model on the dataset to output accurate results
- Conducted statistical analysis on the dataset to gain insights and improved the accuracy of the trained model by 10%
- Debugged the algorithm and tested that the team had developed by finding loopholes in the code through testing

Machine Learning and Sign Language Translation project

September 2022 - December

2022

Honors program

- Trained PyTorch models to achieve 80% accuracy in recognizing and transcribing ASL gestures from videos
- Optimized memory usage during video input convolution processing, reducing wastage and improving efficiency
- Increased efficiency in transcript generation by conducting rigorous testing and validation leading to a reduction by 2 seconds in transcript generation

EXPERIENCE AND ACHIEVEMENTS

CS Student Ambassadors/Research Scholars (CS STARS)

January 2023 -

Present

Researcher Intern and Undergraduate Award Recipient

- Collecting vital sign data of occupants in autonomous vehicle using radar sensing and developing a wireless notification system
- Developing a signal processing algorithm that can clean and process data thoroughly giving accurate distinctions between heart-rate, respiration-rate and other body movements
- Engaged in recruiting, mentoring, and cohort-building activities such as CS Celebrations, fostering a supportive environment

Code Ada

October 2022 - October

2022

Hackathon: Backend developer (Judge's Honorable Mention)

- Collaborated within a 4-member team to develop a service-based application to help users determine the amount of food waste required for conversion into desired useful products, reducing wastage by 50%
- Remodeled the application's structure to enable user registration for services, enhancing the functionality and user experience

MoneyBoxx Finance Ltd.

April 2021 - July 2021

Junior Intern

- Enhanced loan tracking and management system by 5% through cross-functional collaboration across MoneyBoxx divisions
- Analyzed regional data and identified high-priority regions based on metrics, cost/interest feasibility
- Collaborated with AllCloud to integrate the company's loan tracking software based on the market strategies and region data into the cloud

LEADERSHIP

Women in Cybersecurity (WiCyS@UIUC)

May 2023 - Present

Engineering Open House Chair

- Proposed ideas for Engineering Open House project and weighed pros and cons of developing those projects while considering differing levels of expertise of the team members
- Recruiting and leading a team of 35 students to create a cybersecurity-themed game for the project showcase
- Mentoring students by providing guidance, answering queries, and fostering a collaborative environment, while emphasizing resource gathering and utilization

Women in Computer Science (WCS@UIUC)

September 2022 - May

2023

Member of exploration committee, Sub-committee co-lead

- Led weekly Question-Box status meetings, assigning tasks and ensuring completion of resource guides for tech-field students
- Compiled a comprehensive list of internship and job opportunities for F-1 visa freshmen, promoting them through social media

- Organized advising events to provide underclassmen with valuable advice from upperclassmen regarding research opportunities

Girls Who Code (GWC@UIUC)

September 2022 - May 2023

Lead Facilitator

- Led a team of 3 facilitators and mentored a group of 15 young girls from middle school and helped them build projects in Java
- Mapped out a curriculum for the entire semester that was followed by the team to ensure progressive learning in every session