Ritika Mehta

ritikam@andrew.cmu.edu | (973) 369-8787

EDUCATION

Carnegie Mellon University, Pittsburgh PA *May 2025*

Bachelor of Science in Neuroscience, GPA: 3.64/4.0

Concentration in Computational Neuroscience

Minor in Computer Science (planned)

Relevant Coursework: Cognitive Robotics, Introduction to Computer Systems, Principles of Imperative Computation, Concepts of Mathematics, Probability Theory for Computer Scientists, Matrices and Linear Transformations

SKILLS

Programming Languages: Python, C, HTML/CSS, LaTeX

Frameworks: NumPy, OpenCV, Pandas, LangChain

EXPERIENCE

Artificial Intelligence and Machine Learning Intern, StratiFi *May 2023 – July 2023*

- Developed a financial advisor chatbot using the LangChain framework and GPT language model, enabling personalized financial guidance and recommendations for StratiFi's clients
- Created data analysis and code understanding agents with vector databases such as ChromaDB and Deeplake to analyze financial data and provide actionable insights
- Implemented intent analyzing and verification features using prompt engineering & memory to enable smoother user experience & more accurate responses from chatbot

PROJECTS

ENAiBLE Innovation Summer Research Program, Carnegie Mellon University *May 2023 – August 2023*

- Conducted comprehensive background research, consumer interviews, and idea generation to develop solution focused on enhancing the in-store grocery shopping experience
- Utilized Figma to prototype "Grocer Greg," a personal AI assistant that provides live notifications and personalized recommendations to users
- Demonstrated strong teamwork, research, and design skills throughout the program and successfully pitched the final idea in a webinar to a broad audience of industry professionals

AI Robo Therapist, Cognitive Robotics Project *Spring 2023*

- Programmed a AI Cozmo Robo-therapist using GPT 3.5 and the Cozmo SDK
- Utilized prompt engineering techniques to implement sentiment analysis and human-like conversational features
- Implemented face tracking, facial emotional recognition and animation in response to user queries for optimal engagement

Introduction to Computer Systems Labs *Spring 2023*

- Malloc: Implemented dynamic memory allocator using segregated lists that supports malloc, free, calloc and realloc function calls
- Cache: Implemented a cache simulator
- Attack: Exploited buffer overflow attacks using code injection attacks and return-oriented programming attacks
- Shell: Implemented unix shell with job control and fg, bg commands using control, signals, and signal handling techniques

Fundamentals of Programming and Computer Science Term Project *Spring 2022*

- Coded user interactive cooking game '*Dhabha Dash'* in python
- Implemented path finding algorithm DFS to move player and customers with player, customer and object tracking
- Developed AI algorithms that calculate customers' experiences, tip players, cook food with automated chef and timer

ACTIVITIES

Girls Who Code, Activity Committee *January 2023 –*

- Develop an engaging and effective curriculum for python programming classes for young girls
- Collaborate with other team members to design and refine lesson plans that help our students build strong foundational skills in programming.