Atiksh Bhardwaj

ab2635@cornell.edu ● atikshb.github.io

Education

Cornell University, College of Engineering Ithaca, NY
Bachelor of Science in Computer Science, Minor in Mathematics Expected May 2026
GPA: 4.00/4.30
Honors and Awards: Dean's Honors List and On Track for Honors Program
Related Courses: Algorithms, Reinforcement Learning, Machine Learning, Computer Vision, Artificial Intelligence, Functional Programming, Probability and Statistics, Discrete Math, Computational Algebra, Honors Data Structures, Linear Algebra, Multivariate Calculus

Technical Skills

- **Back-end Development Tools:** Python, Java, OCaml, MATLAB, Simulink, ROS C, C++, SQL
- **Front-end Development Tools:** Electron, HTML5, CSS3 & JavaScript
- **Developer Tools:** Git, GitHub, VS Code, PyTorch, TensorFlow, OpenCV
- **Cloud Development Tools:** AWS, Azure, Google Cloud,
- **Computer:** Linux, Windows, MacOS Microsoft Suite (Excel, Word, & PowerPoint), Blender, Google Suite

Experience

Research Experience May 2023-Present

- Research as a Full-Time Undergraduate Researcher for PoRTaL Group under Prof. Sanjiban Choudhury during School Year and Summer 2023 and Summer 2024

MOSAIC: A Modular System for Assistive and Interactive Cooking CoRL 2024

- Engineered vision-based system for human pose tracking to run previous forecasting algorithms
- Coded in Python and ROS to automate different robot tasks such as handover and stirring that activated from prompts generated by the LLM task planner
- Best Paper at ICRA 2024 VLNMN Workshop and Best Poster at ICRA 2024 MoMa Workshop

InteRACT: Transformer Models for Human Intent Prediction Condition on Robot Action ICRA 2024

- Engineered a ROS framework to map human movement to Franka Robot for Human-Robot data collection
- Coded Alignment loss for training transformer architecture to compare human motion versus robot motion
- Created and Maintained Collaborative Manipulation Dataset (CoMaD) with over 488 human-human episodes and 304 human-robot episodes resulting in a total of 7 hours of motion

ManiCast: Collaborative Manipulation with Cost-Aware Human Forecasting CoRL 2023

- Created new human-human data for training, created figures and edited final paper

Work Experience

Teaching Assistant August 2023-Present

- Hold weekly office hours, Create new assignments for each course, Grade exams and assignments
- Reinforcement Learning (Spring 2025), Robot Learning (Fall 2024), Artificial Intelligence (Spring 2024), Functional Programming (Fall 2023)

Brains4Drones Internship May 2022-August 2022

- Programmed computer vision algorithm to identify specific danger zones amongst wildfire prone areas
- Created automatic panorama stitcher to make LIDAR maps through OpenCV and C++ based on drone movement
- Coded GUI application in JavaScript for line workers to view footage and automated Lidar Map in real-time

Projects

DINK: Differently Initialized Q-Networks January 2024-May 2024

- Collaborated with team of 2 for final project of CS4756: Introduction to Robot Learning
- Coded a Deep Q-Network in Python from a public Atari dataset on open-source Space Invaders environment

CritterWorld August 2022–December 2022

- Collaborated with team of 3 for final project of CS2112: Honors Data Structures to make a high fidelity simulator
- Coded in Java, a new critter programming language, a backend simulation engine, and a GUI for the simulation

BigRed//Hacks November 2022

- Collaborated with team of 4 to create NFTTree as an open marketplace for users to grow trees via NFTs
- Developed a JavaScript GUI as a prototype mock of the social media gallery of the NFT trees
- Winner of Blockchain and Web Track sponsored by PI Network