

# KOUSHANI CHAKRABARTY

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## EDUCATION

**University at Buffalo - SUNY**

*Master's, Computer Science*

**August 2022 - December 2023**

*GPA: 3.4*

- **Relevant Courses:** Machine Learning, Reinforcement Learning, Natural Language Processing, LLMs

**University at Buffalo - SUNY**

*Master's, Electrical Engineering*

**January 2019 - May 2020**

**West Bengal University of Technology**

*Bachelor's, Electronics and Communications Engineering*

**August 2011 - June 2015**

*GPA: 7.65*

## PROJECTS & OUTSIDE EXPERIENCE

**Swarm RL in Quadcopters**

*Research Intern*

**Buffalo, NY**

*June 2023 - Present*

- Developing an end to end RL model for payload flight in quadcopters

**Reinforcement Learning LLM**

*Research Intern*

**Buffalo, NY**

*August 2023 - Present*

- Currently developing a Large Language Model using Open AI's Transformers to aid in Reinforcement Learning Research

**Behavioral Cloning in Reinforcement Learning**

*Research Intern*

**Buffalo, NY**

*January 2023 - May 2023*

- Developed an experiment to compare vanilla Behavioral Cloning and Behaviorally Cloned Reinforced Learning

**IoT enabled Workplace Optimization using Reinforcement Learning**

*Research Intern*

**Buffalo, NY**

*January 2023 - May 2023*

- Developed a Reinforcement Learning based solution to optimise communication in an IoT enabled workplace

**Game Rating Application**

*January 2023 - May 2023*

- Developed a Game Rating Application by applying NLP on an Amazon Reviews Dataset

## PROFESSIONAL EXPERIENCE

**SAIR Lab**

*Research Intern*

**Buffalo, NY, USA**

*June 2023 - Present*

- Spearheaded research on Reinforcement Learning techniques in Unmanned Flight and Robotics, resulting in the development of advanced algorithms for autonomous flight control.
- Collaborated with cross-functional teams to integrate machine learning models into flight systems, demonstrating exceptional teamwork skills.
- Utilized Python, PyTorch, and TensorFlow to implement and optimize machine learning algorithms, showcasing proficiency in relevant programming languages and frameworks.

**CERN**

*Research Intern*

**Kolkata, West Bengal, India**

*June 2021 - June 2022*

- Developed code to parallelise Data Collection in the Allen Experiment at the Large Hadron Collider in Geneva, Switzerland

**University at Buffalo - SUNY**

*Research Intern*

**Buffalo, NY, USA**

*June 2020 - January 2021*

- Conducted research on Bayesian Network Structure Learning Algorithms

**Tata Consultancy Services**

*Associate Systems Engineer*

**Kolkata, West Bengal, India**

*July 2015 - July 2017*

- Developer of Applications for Telecommunications Clients

## SKILLS & INTERESTS

**Skills:** Git, HTML/CSS, Java, Python, Pytorch, Tensorflow, AWS, Agile, Docker, Kubernetes, Hadoop, Apache Spark

**Languages:** Hindi, Bengali

**Interests:** Singing, Cooking