Neeloy Chakraborty

5557 Cottonport Dr, Brentwood, TN 37027 • (412) – 606 – 8494 • neeloyc2@illinois.edu • https://theneeloy.github.io/

Goal: Pursuing graduate education & full-time opportunities in the field of human-centered autonomy.

Education:

- **University of Illinois at Urbana Champaign** — Exp. May 2021
  - Bachelor of Science in Computer Engineering, Minor in Computational Science & Engineering — GPA 3.68/4.00

Publications:

- S. Liu*, P. Chang*, **N. Chakraborty**, K. Driggs-Campbell, "Decentralized Vision-Based Robot Crowd Navigation" — ICRA 2021
  In preparation for IEEE International Conference on Robotics and Automation (ICRA), 2021.

Research Projects:

- **Multi-Agent Reinforcement Learning Approach to Heist-like Environments (Undergrad Thesis)** — Fall 2020 –
  Advisor: Professor Katie Driggs Campbell — University of Illinois
  Developing MARL framework to train agents to collaborate in a simulated environment with sparse rewards.

- **Decentralized Vision-Based Robot Crowd Navigation** — Fall 2019 –
  Advisor: Professor Katie Driggs Campbell — University of Illinois
  Training a robot to reach a goal state while avoiding colliding with other agents, in a partially observable setting.

Teaching Experience:

- **Undergraduate Course Assistant for Digital Systems Laboratory (ECE 385)** — Aug 2019 –
  Providing impactful assistance to students on TTL & System Verilog hardware labs — University of Illinois

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Selected Industry Experience:

- **Interim Engineering Intern in Global CAD at Qualcomm** — Summer 2020
  Building generalized data gathering solutions to support Design for Test pipeline — Qualcomm
  - Leading design process of base framework for data gathering tool
  - Collaborating and adapting with international teams to consider multiple perspectives

- **Global Management Trainee Intern in Solutions at Anheuser Busch** — Summer 2019
  Implementing short- and long-term process solutions leveraging technology with an annual ROI of $1.5M — Anheuser Busch
  - Identifying root causes of multi-million-dollar annual problem via Six Sigma LEAN exercises
  - Pitching solutions to multidisciplinary teams in the People department including Managers & Directors

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Selected Additional Projects:

- **Efficient FPGA Smart Home Security Camera System (Project Watchdog)** — Apr 2019 – Oct 2019
  Leading hardware design of accelerated IoT security system (Regional Finalist in InnovateFPGA 2019) — Student Group Project

- **Brain Computer Interface Platform for IoT Applications (Project HackMe)** — Feb 2019
  Leading data analytics and storage team (HackIllinois 2019 Runner-up and Sponsor Award Winners) — Student Group Project

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Languages: Python, C/C++, x86 Assembly, System Verilog, Java
Tools: PyTorch, TensorFlow, Git, Raspberry Pi, ROS, OpenCV, Altera FPGAs & Quartus Prime, Autodesk Fusion 360