

# Neeloy Chakraborty

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**Goal:** Pursuing career advancement in the field of human-centered autonomy.

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## 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
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## 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.
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## 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.
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## Teaching Experience:

- Undergraduate Course Assistant for Digital Systems Laboratory (ECE 385)** Aug 2019 –  
Providing impactful assistance to students on TTL circuit & 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  
Leading design process of base framework for data gathering tool  
Collaborating and adapting with international teams to consider multiple perspectives  
Qualcomm
  - 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  
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  
Anheuser Busch
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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, Markdown

**Tools:** PyTorch, TensorFlow, Git, Raspberry Pi, ROS, OpenCV, Altera FPGAs & Quartus Prime, Autodesk Fusion 360