

OWEN KUNHARDT

Brooklyn, NY

Email: okunhardt@owenkunhardt.com ◊ Website: okunhardt.github.io

EDUCATION

Hunter College, City University of New York (CUNY Hunter College) August 2017 - May 2021
B.A. with Double Major in Computer Science and Mathematics | Minor in German
Computer Science GPA: 4.0/4.0 | Mathematics GPA: 3.93/4.0 | Overall GPA: 3.959/4.0

RESEARCH EXPERIENCE

Massachusetts Institute of Technology Cambridge, MA
Visiting Student September 2020 - Present

- Visiting student in the Brain and Cognitive Science Department and work as a research assistant in lab of Professor Tomaso Poggio under the supervision of Dr. Arturo Deza

- Continue investigation of to what extent the image manifold (digits, objects, etc.) affects adversarial robustness
- Research Intern* May 2020 - August 2020

- Research intern in MIT Summer Research Program - Biology in lab of Professor Tomaso Poggio under mentorship of Dr. Arturo Deza

- Investigated the adversarial robustness of deep neural networks on different types of images and study to what extent the image manifold (digits, objects, or scenes) affects adversarial robustness

- Attended lectures on cutting-edge research in biology, neuroscience, and artificial intelligence

CUNY Hunter College New York, NY
Research Assistant January 2020 - February 2021

- Investigate using machine learning to predict preterm birth under the mentorship of Professor Anita Raja
- Perform exploratory data analysis on large dataset of nulliparous women to determine factors of preterm birth
- Explore learning with privileged information, learning with class imbalance, and transfer learning

Undergraduate Research Assistant August 2019 - December 2019

- Read, analyzed, and discussed cutting-edge research papers on artificial intelligence and machine learning in weekly lab meetings under the mentorship of Professor Susan Epstein

PAPERS

O Kunhardt, A Deza, and T Poggio. [The Effects of Image Distribution and Task on Adversarial Robustness](#), MIT CBMM Memo #116, under review at ICML 2021.

TEACHING EXPERIENCE

Artificial Intelligence, CUNY Hunter College January 2021 - Present
Undergraduate Teaching Assistant New York, NY

- Help with course logistics and help create homework assignments for students
- Grade assignments
- Help with course logistics

Operating Systems, CUNY Hunter College January 2021 - Present
Undergraduate Teaching Assistant New York, NY

- Answer questions on class discussion board and during lecture
- Hold office hours

Introduction to Computer Science, CUNY Hunter College August 2018 - Present
Head Undergraduate Teaching Assistant and Lab Supervisor New York, NY

- Tutor students taking Introduction to Computer Science and teach problem solving and debugging strategies
- Mentor and serve as reference to other undergraduate teaching assistants
- Help with course logistics

- Maintain class website, department laptops, and grading scripts for class assignments on Gradescope
- Helped transition course online during COVID-19 Pandemic
- Run lab review, where I explain course material in weekly labs to large group of students (Fall 2020, Spring 2021)
- Proctor exams and grade quizzes and parts of final exams

Machine Learning, CUNY Hunter College

August 2020 - December 2020

Undergraduate Teaching Assistant

New York, NY

- Hold office hours
- Help with course logistics and help create homework assignments for students

Software Analysis and Design 3, CUNY Hunter College

January 2020 - July 2020

Head Undergraduate Teaching Assistant

New York, NY

- Tutored students taking Software Analysis and Design 3 and taught problem solving and debugging strategies
- Mentored and served as reference to other undergraduate teaching assistants
- Helped with course logistics and helped create homework assignments for students
- Helped create and maintain grading scripts for class assignments using Gradescope
- Helped transition course online during COVID-19 Pandemic
- Proctored exam and graded homework assignments

Autonomous Navigation Workshop, CUNY Hunter College

December 2019 - January 2020

Teaching Assistant

New York, NY

- Teaching assistant and student mentor for Duckietown, funded by Google Research ExploreCSR Program
- Helped teams of students program small autonomous vehicles (Raspberry Pi platform, running Robot OS & Ubuntu) focusing on image capture and simplified lane following to navigate a scaled-down city track

Software Analysis and Design 2, CUNY Hunter College

May 2019 - December 2019

Undergraduate Teaching Assistant

New York, NY

- Tutored students taking Software Analysis and Design 2 and taught problem solving and debugging strategies
- Mentored and served as reference to other undergraduate teaching assistants

SKILLS

Programming Languages	C/C++, Python 3, MATLAB, Julia, Bash
Libraries/Frameworks	Numpy, Pandas, Scikit-Learn, PyTorch
Operating Systems	Windows, Debian based distributions (e.g. Ubuntu), MacOS
Software	Microsoft Office, WEKA (ML Platform)
Markup & Markdown Languages	L ^A T _E X, Markdown, HTML
Languages	English - Native, German - Intermediate

PROFESSIONAL DEVELOPMENT

Massachusetts Institute of Technology

January 2-8, 2020

Quantitative Methods Workshop Participant

Cambridge, MA

- Participated in week long intensive workshop where MATLAB was used to analyze experimental data in biology and neuroscience.

Certificates:

MITx on edX [Quantitative Biology Workshop](#) (2020)

HarvardX on edX [Fundamentals of Neuroscience](#) (2020)

ACHIEVEMENTS, SCHOLARSHIPS, HONORS, AND AWARDS

Chancellor's Global Scholarship for Study Abroad	Summer 2018
Max-Kade Scholarship	Summer 2018
Mother's Day Scholarship	Fall 2019 & Spring 2020
Dean's List	All semesters
Delta Phi Alpha Honor Society	Joined May 2019