

COURTNEY MCBETH

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EDUCATION

University of Illinois at Urbana-Champaign

August 2021 – Present

Expected Graduation: May 2026

PhD, Computer Science

Cornell University

August 2017 – May 2021

BS, Computer Science

BS, Electrical and Computer Engineering

Dyson Business Minor for Engineers

Graduated Magna Cum Laude

GPA: 3.822/4.300

RESEARCH AND PROFESSIONAL EXPERIENCE

University of Illinois Parasol Lab, Dr. Nancy Amato

Research Assistant

August 2021 - Present

- Researching multi-robot motion planning problems.

Cornell University Autonomous Sailboat Team (CUSail)

Navigation Subteam Lead

May 2020 – May 2021

- Managed a team of undergraduates engineering the hardware and software components of a robotic sailboat.
- Supervised the integration of the electrical and mechanical components of the sailboat.

Embedded Systems Engineer

September 2019 – May 2021

- Wrote the main autonomous navigation algorithm using C and Python.
- Designed printed circuit boards (PCBs) to integrate with a PIC32 microcontroller and a Raspberry Pi.
- Integrated sensors (GPS, LiDAR, anemometer, and encoder) into the sailboat system.
- Implemented a computer vision algorithm to detect buoys.

Ford Motor Company

June 2020 – August 2020

Information Technology Intern

- Worked on front-end and back-end web development projects.
- Practiced continuous integration, test driven development, and pair programming.

The Depository Trust and Clearing Corporation

June 2019 – July 2019

Application Development Intern

- Transitioned applications between database management systems.
- Wrote SQL code to manage company databases.

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June 2018 – August 2018

Electrical Engineering Intern

- Selected electrical components for medical devices.
- Tested printed circuit board functionality.

TEACHING EXPERIENCE

Cornell University

Teaching Assistant, CS 1112, Intro to Computing using MATLAB, Spring 2021

- Taught both in-person and online laboratory sections.
- Held office hours.
- Wrote exam questions.
- Graded lab work, projects, and exams.

Head Teaching Consultant, CS 1112, Intro to Computing using MATLAB, Fall 2020

- Supervised the undergraduate teaching consultants.
- Held office hours.
- Created the final project.
- Graded lab work, projects, and exams.

Teaching Consultant, CS 1112, Intro to Computing using MATLAB, Fall 2018 – Spring 2020

- Held office hours.
- Graded lab work, projects, and exams.

HONORS AND AWARDS

- Dean's List (*Cornell University*) Fall 2017 – Spring 2021

TECHNICAL KNOWLEDGE

Proficient

Python

C/C++

MATLAB

Java

Working Knowledge

JavaScript

Verilog

OCaml

Swift

Kotlin

ARM

MIPS