

# Wyatt McAllister

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## EDUCATION

### UNIVERSITY OF ILLINOIS

#### MS IN ELECTRICAL ENGINEERING

Exp. May 2018 | Champaign-Urbana, IL  
Conc. in Control and Data Science  
College of Engineering  
Dean's List (All Semesters)  
Curr. Cum. GPA: 4.0 / 4.0

#### BS IN ELECTRICAL ENGINEERING

May 2016 | Champaign-Urbana, IL  
Conc. in Control Systems  
College of Engineering  
Dean's List (All Semesters)  
Cum. GPA: 3.92 / 4.0

### SIMON'S ROCK COLLEGE

May 2014 | Great Barrington, MA  
Cum. GPA: 3.94 / 4.0

## LINKS

LinkedIn: <https://wyattsmcall1.github.io>

## COURSEWORK

### GRADUATE

Autonomous Decision Making, Random Processes, Stochastic Control, Statistical Learning Theory, Nonlinear Control, State Space Control (*Research Asst.*)

### UNDERGRADUATE

Computing Systems and Programming, Analog and Digital Signal Processing, Probability with Engineering Applications, Fields and Waves, Intro to Power Electronics, Semiconductor Devices, Microelectronic Circuits, Digital Systems Laboratory, Intro to Robotics, Intro to Control Systems

## SKILLS

### SOFTWARE

C++ • C • Java • MatLab • Mathematica  
Python •  $\LaTeX$  • Photoshop

### HARDWARE

ROS • System Verilog • OpenCV •  
EagleCAD PCB Design • Control Design

### LANGUAGE

Spanish: Full Professional Proficiency

## PROFESSIONAL EXPERIENCE

### MICROSOFT SURFACE HUB | SUMMER HARDWARE INTERN

May–August 2015 | Portland, OR

- Modeled the vision system used in the manufacturing process, and improved its accuracy using capability studies
- Built a custom testing fixture for the incoming quality control of power supplies
- Created custom pattern generator for the testing of incoming raw LCD displays before manufacturing

### VIEW RAY INCORPORATED | SUMMER HARDWARE INTERN

May–August 2014 | Oakwood Village, OH

- Worked on a system for MRI targeted radiation therapy to prevent the irradiation of healthy tissues
- Created a fiber optic cable testing box, used to efficiently test data flow through parts of system
- Fabricated and documented various components for product distribution

## RESEARCH

### DISTRIBUTED AUTONOMOUS SYSTEMS LAB | RESEARCHER

May 2017–Present | Champaign-Urbana, IL

- Working with **Prof Girish Chowdhary** to design a multi-agent planning algorithm for robotic weed killing, with an associated simulation framework including a realistic weed growth model

### ADVANCED CONTROLS RESEARCH LAB | RESEARCHER

August 2016–May 2017 | Champaign-Urbana, IL

- Worked with **Prof. Girish Chowdhary** to create a learning-based parameter estimation framework for quad rotors with interchangeable blades
- Worked with **Prof. Alex Kirlik** to create a software interface for the Automation Supporting Prolonged Independent Residence for the Elderly (ASPIRE) program using the Robot Operating System (ROS)
- Worked with **Prof. Naira Hovakimyan** to help create a hardware implementation of a Bézier Curve collision avoidance algorithm for cooperative mission planning between quad rotors

### BRETL GROUP | UNDERGRADUATE RESEARCHER

August–December 2015 | Champaign-Urbana, IL

- Worked with **Prof Timothy Bretl** to design a testing fixture for experiments toward extending a one-dimensional model for the control of deformable rods to a model for two dimensional objects with planar deformation

## AWARDS

2018	Shun Lien Chuang Memorial Award in ECE	Top 1/503
2016	Highest Honors	GPA >3.8/4.0
2016	John Bardeen Award in ECE	Top 1/2500
2014–2016	Dean's List	Top 20th Percentile

## SOCIETIES

2016	Tau Beta Pi Engineering Honor Society	Top 12th Percentile
2015	Eta Kappa Nu IEEE Honor Society	Top 25th Percentile