

# Robert Mitchell Jones

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## EDUCATION

### UNIVERSITY OF ILLINOIS

#### MS IN MECHANICAL ENGINEERING

Dynamics & Controls

Advisor: Naira Hovakimyan

Expected May 2017 | Champaign, IL

### UNIVERSITY OF RHODE ISLAND

#### BS IN MECHANICAL ENGINEERING

May 2015 | Kingston, RI

Minor in Physics

Suma Cum Laude

College of Engineering

Dean's List (All Semesters)

Cum. GPA: 3.71 / 4.0

Major GPA: 3.90 / 4.0

## LINKS

Github:// [rmjones7](#)

LinkedIn:// [robertmitchelljones](#)

YouTube:// [jeepjkwangler](#)

Twitter:// [@JonesRmjones7](#)

## COURSEWORK

### GRADUATE

Robust Adaptive Control

Optimum Control Systems

Advanced Robotics Planning

Control of Complex Systems

Analysis of Nonlinear Systems

Control System Theory and Design

### UNDERGRADUATE

Computer Control Systems

Mechatronics

Nuclear Reactor Design

Finite Element Analysis

Dynamics

Statics

## SKILLS

### PROGRAMMING

Proficient:

Matlab • Simulink • C++ • ROS

C • Python •  $\text{\LaTeX}$  • Arduino

### HARDWARE

Proficient:

Solidworks • Inventor • Creo

Rapid Prototyping • Machining • Welding

Robot Assembly • UAV Piloting

## EXPERIENCE

### NASA AMES RESEARCH CENTER | GRADUATE INTERN

June 2016 – Aug 2016 | Mountain View, CA

- Designed and built an aerial manipulator system for use on a small quadrotor.
- Programmed an onboard controller for execution of manipulator commands during flight.
- Modeled manipulator dynamics in Simulink and developed method for stabilizing vehicle during normal operation and highly dynamic maneuvers.

### GREENSIGHT AGRONOMICS | MECHANICAL ENGINEER & UAV PILOT

June 2015 – Sept 2015 | Boston, MA

- Developed subsystems for an early-stage startup company delivering autonomous plant monitoring solutions to the agricultural and recreational industries.
- Flew contracted on-site missions mapping various farms, golf courses, athletic fields, etc.

### BNL INDUSTRIES | ENGINEERING INTERN

June 2014 – Aug 2014 | Vernon, CT

- Worked within engineering department solving various problems related to fluid dynamics, static and dynamic loading, and material analysis.
- Performed extensive testing on experimental valve prototypes.
- Created 3D models and drawings for new and existing valve parts and assemblies.
- Designed parts for experimental valves within R&D department.

## RESEARCH

### ADVANCED CONTROLS RESEARCH LAB | GRADUATE STUDENT

Sept 2015 – Present | Champaign, IL

Working with academic advisor Prof. Naira Hovakimyan toward completion of a thesis for a master's degree in Mechanical Engineering at the University of Illinois.

Current research involves developing a small aerial manipulation system for the assistance of elderly, consisting of a small quadrotor and a manipulator arm. The focus of the work being done is to design a stabilizing controller for the coupled system as well as methods for trajectory generation to achieve high level tasks.

## AWARDS

2015 MechSE Outstanding ME Teaching Assistant Award

## SOCIETIES

2016 American Institute of Aeronautics and Astronautics

2014 Pi Tau Sigma International Mechanical Engineering Honor Society

Former Chapter Vice President

2014 American Society of Mechanical Engineers

Former Chapter Secretary

2014 Tau Beta Pi Engineering Honor Society

2013 Golden Key International Honour Society

2012 Phi Eta Sigma National Honor Society

2012 National Society of Collegiate Scholars