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University of Cincinnati Bachelor of Science – Aerospace Engineering, Dean's List

2013–Present Cincinnati, OH

- GPA: 3.87 overall, 3.90 in Aerospace Engineering
- Expected graduation: Spring 2017

# RESEARCH & EXTRACURRICULAR

# National Science Foundation Undergraduate Research

2013

- Analyzed a benchmark structural stability problem to devise a control methodology using fuzzy-genetic systems.
- System model exhibited both flexible and rigid body modes. Designed controller performed within 3% of theoretically ascertained limit of stability.
- Controller consists of a genetically–tuned fuzzy inference system.
- Presented findings at multiple conferences.

### Air Force Research Labs Autonomous Air Vehicle Conference Autonomous Air Vehicle Competition Team Member

2014-Present

- Competition challenge requirements included locating and imaging a target in an indoor, GPS-denied environment.
- Developed software to integrate various hardware components to ease the exchange of sensor data.
- Software processes raw data streams from serial connections to useful information to be used in the control and guidance of the air vehicle.
- Current work includes developing improved computer vision algorithms and interpreting encoded waypoint information.

# PROFESSIONAL EXPERIENCE

**Research Engineer** 

### **Engineering and Scientific Innovations, Inc.**

2014-Present Cincinnati, OH

- Overhauled proprietary fire suppressant delivery system resulting in a 70% efficiency gain.
- Assisted in the prototyping and proof of concept for flow introduction of powdered agent.
- Performed cavity analysis of hydrodynamic ram events using custom computer code.

### Green It Up LLC—Lawn Care Company

2011-2013

Colorado Springs, CO/Provo, UT

**Sole Owner and Operator** 

• Grossed \$24,000 in sales in first year of operation.

- Satisfied needs of more than 100 regular clients.
- Maintained brand equity through personal management of 3 employees.
- Managed own finances, accounting and bookkeeping.
- Bought out business partner 3 months after start-up.
- Successfully facilitated transition of business from Colorado to Utah.

#### Philippines Bacolod/Iloilo Mission

**Philippines** 

Volunteer Representative, LDS Church

• Learned instructional material in foreign language in 4 months.

- Designed and delivered weekly training sessions for up to 20 volunteers.
- Conducted weekly goal setting and accountability meetings.

**Intermountain Lawns** 2007-2008

**Crew Leader** 

• Led and supervised crew of 2–3 people daily. • Handled and resolved on-site customer concerns.

- Improved maintenance procedure for all company equipment.
- Streamlined daily operations, improving efficiency of small team.

#### **Embry-Riddle Aeronautical University**

2005-2006

USAF Academy, CO

Colorado Springs, CO

Flight Line Assistant

• Scheduled flight for over 100 students daily.

- Cleaned and maintained aircraft to ensure flight safety.
- Streamlined student check-in process, increasing instructional flight time.

## **SKILLS**

- Beginner to intermediate proficiency in Autodesk AutoCAD and Inventor Pro.
- Basic software development using MATLAB, Python and Visual Basic for Applications.
- LATEX document preparation and typesetting.
- Familiarity with Linux-based operating systems.

#### **PUBLICATIONS**

- Janson, A., Stockton, N., Cohen, K., "Genetic Optimization of Fuzzy Logic Control for Coupled Dynamic Systems", SciTech, AIAA, Kissimmee, FL, 2015.
- Brown, B., Crowell, C., Feie, B., Hatrmann, J., Hutchins, B., Kukreti, S., Mummidivarapu, S., Redmond, B., Sathyan, A., Stockton, N., Stubblebine, A., Kivelevitch, E., Cohen, K., "Development and Validation for the First Annual AAVC Competition by the University of Cincinnati Autonomous Vehicle Group", Autonomous Aerial Vehicle Conference, AFRL, Wright-Patterson Air Force Base, OH, 2014.

2008-2010