

# JOSHUA LYLE DOWLER

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## OBJECTIVE

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Seeking a challenging aerospace focused career in an innovative engineering company

## EDUCATION

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### **The Pennsylvania State University**

Master of Science in Aerospace Engineering

- Concentration in Applied Aerodynamics

**University Park, PA**

Expected December 2012

GPA: 3.80/4.0

#### **Related Course Work**

- Theory of Flight
- Fluid Mechanics
- V/STOL Aircraft
- Rotorcraft Dynamics
- Evolutionary Optimization Methods
- Composite Materials Processing

### **Harding University**

Bachelor of Science in Mechanical Engineering

- Graduated Cum Laude
- Engineer In Training

**Searcy, AR**

May 2010

GPA: 3.66/4.0

#### **Related Course Work**

- Machine Design
- Control Systems 1
- Design with Finite Elements
- Mechanics of Materials

## EXPERIENCE AND ACTIVITIES

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Research Assistantship for Dr. Sven Schmitz

May, 2011 - Present

The Pennsylvania State University

University Park, PA

- Developing the XTurb-PSU wind turbine design and analysis code
- Incorporating knowledge of evolutionary algorithms into wind turbine blade optimization
- Formulating a new stall delay model for more accurate blade loading calculations

Internship in Togo, West Africa

Summer 2009

Harding University

- Eight week program participating in language learning, development projects, and cultural survey studies
- Lived in a remote village with a native family for four days to experience life as a Togolese

American Society of Mechanical Engineers (ASME) – Student member

American Helicopter Society (AHS) – Student member

American Institute of Aeronautics and Astronautics (AIAA) – Student member

## LEADERSHIP AND HONORS

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### Senior Design Project Leader

- Interdisciplinary group of engineering students integrating subsystem designs
- Group received the 2010 Donald W. Reynolds Governor's Cup Innovation Award
  - Provided conceptual and technical knowledge to a business team in a statewide competition

### Golden Key International Honour Society Member

- Awarded for being in the top 15% of my class at The Pennsylvania State University

### Recipient of Chancellor's Scholarship

- Academic based award for half-tuition funding for eight semesters
- Continued requirement to maintain a GPA of 3.25 or higher

### Dean's List

- Spring 2007, Fall 2007, Spring 2008, Fall 2008, Spring 2009, and Spring 2010

### Harding University Honors College

- Requires a GPA of 3.5 in order to apply
- Able to participate in honors classes, acquiring skills in critical thinking in a small class environment

### Co-Leader for a community service campaign to Silver Spring, MD

- Planned a week long campaign of 22 students, coordinating service events with local organizations

### TNT Social Club

- Service project leader 2009-2010

## SKILLS

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### Computer:

- SolidWorks, MATLAB, Cygwin, gnuplot, Microsoft Windows, Microsoft Office
- Experience with C++, Fortran, and MATLAB programming languages
- Wind Turbine Design Codes: WT\_Perf, FAST, TurbSim, AirfoilPrep, XFOIL, RFOIL

### Foreign Language:

#### German

- Completed four years of German during high school acquiring basic understanding of the language
- Beginner level reading, writing, and conversation skills

REFERENCES AVAILABLE UPON REQUEST