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Joshua Bowman

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Permanent Address:
114 Aston Court
McMurray, PA 15317

EDUCATION

The Pennsylvania State University — **University Park, PA**
M.S. in Nuclear Engineering — *First Semester*
B.S. in Nuclear and Mechanical Engineering, Magna Cum Laude — *Class of Winter 2016, Cumulative GPA: 3.94*

Peters Township High School — **McMurray, PA**
Cumulative GPA: 5.1, Graduated with Highest Honors as PT Scholar — *Class of 2013*

EMPLOYMENT

Westinghouse Electric Company — **Cranberry Township, PA**
Nuclear Components Engineering Intern — *June 2016-August 2016*

- Compiled as-built templates for secondary side components
- Performed tolerance stack-ups for various secondary-side components to determine necessary design dimension changes
- Created SolidWorks models for design offers and redesigns and performed Ansys analysis for component redesigns
- Reviewed technical documents and specifications for maintaining ASME Code and Westinghouse requirements

The Pennsylvania State University — **State College, PA**
Course Grader/Exam Proctor (3 Classes, 2 Professors) — *August 2015-December 2016*

Westinghouse Electric Company — **Blairsville, PA**
Technical Services Summer Intern — *May 2015-August 2015*

- Conducted statistical analysis for stress failure tests from various annealing furnaces
- Developed experiments to determine the effectiveness of pilger lubricant candidates
- Reorganized tool room for auxiliary tools for cold pilger mills and improved organizational database

Ansys, Inc. — **Canonsburg, PA**
Quality Assurance Summer Co-op — *June 2014-August 2014*

- Reviewed code for new builds of software for next release
- Performed quality assurance testing for verification before releases of products on various operating systems
- Compiled customer responses for analysis and created relevant reports for analysis of product and company performance

CLASSES, PROJECTS, PUBLICATIONS

Senior Design Project: Boundary Waters Core Redesign — *Spring 2016*

- Developed a new fuel loading pattern to meet performance requirements for Westinghouse theoretical core
- Wrote and implemented Westinghouse ANC code to analyze the core under for various conditions
- Met all technical requirements and won best in show among all nuclear engineering teams at Penn State

Senior Design Project: Additive Manufacturing Metal Powder Separation — *Fall 2016*

- Developed and improved process for separating three different metal powders used in multi-metal printing
- First stage metal separation currently being implemented in X Material Processing multi-metal printer

Group Member: Engineering Design Project- CATA Redesign — *Fall 2013*

- Contributed to engineering project sponsored by ALCOA to increase sustainability on college campuses
- Worked with a team of four to plan, develop, and present new all-aluminum bus design which would save over $17,000 in fuel through standard bus lifetime and result in lower overall cost

VOLUNTEERING, ACTIVITIES, AWARDS

Awards and Honors:

- Penn State's Hallowell and Harding Engineering Honors Scholarship, Dean's List (all semesters)
- Owen M. Katz Scholarship (American Society of Materials)
- Bechtel Bettis Citizen Scholarship
- RMEL Foundation Scholarship (Electrical Energy Industry)
- Inducted member, Tau Beta Pi (International Engineering Honors Fraternity)

Activities

- Engineers Without Borders: Member — *August 2013- Current*
- American Nuclear Society: Member — *August 2014-Current*
- Alliance Christian Fellowship: Member , currently Head Trustee and Elder — *October 2013-Current*

Service

- Habitat for Humanity — *2008-Current*
- Family Promise — *2004-Current*
- Day of Caring — *October 2010- Current*

COMPUTER SKILLS

Programming and Design: MATLAB, Python, SolidWorks, Excel, Ansys TestBench and WorkBench