

# Erich Weaver

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## Experience

**Purdue University**, West Lafayette, IN (08/2017 – Present)

*Graduate Researcher*

- Conducting research on aqueous based ceramic-polymer processing.
- Designed new suspension preparation procedures to improve production capabilities.
- Investigated room-temperature injection molding and pressureless sintering of boron carbide
- Trained, managed, and mentored undergraduate researchers to develop and hone organizational and laboratory research skills.
- Awarded NDSEG Fellowship by DoD (3-year external fellowship).

**Naval Surface Warfare Center Carderock**, West Bethesda, MD (05/2016 – 07/2016)

*NREIP Researcher (Required Secret Clearance)*

- Conducted magnetic materials research.
- Responsible for experimental design and setup of high temperature oil bath and Charpy Impact testing.
- Collected data from magnetization, magnetostriction, and impact energy experiments using a vibrating sample magnetometer, Big Mag software, and a Rhiele Charpy Impact machine.
- Analyzed information for magnetic material characterization and aluminum calorimetry.
- Calibrated equipment and authored operation guides for technical instruments and techniques.

**University of Alabama Micro-Fabrication Facility**, Tuscaloosa, AL (08/2014 – 02/2016)

*Undergraduate Researcher*

- Participated in microfabrication and thin films research.
- Responsible for providing training and assistance to researchers on the operation of a 7,000 ft<sup>2</sup> clean room with more than 2,200 ft<sup>2</sup> of class 100/1000 facilities housing various physical vapor deposition, lithographic and ion etching instruments.
- Fully qualified as an operator and trainer for the following instrumentation: Karl Suss MA6 Mask Aligner, Solitec 5110 Spinner, Intlvac Ion Mill, Laurell 650mz Spin Coater. Maintained clean room facilities, equipment, and supplies.

## Education

**Ph.D. Materials Science & Engineering** (Expected 05/2021)

**Purdue University**

**B.S. Metallurgical & Materials Science Engineering** (05/2017)

**University of Alabama** (GPA 3.70 / 4.00 – University Honors)

## Fellowships and Awards

**National Defense Science & Engineering Graduate Fellowship (NDSEG)** (09/2018-09/2021)

- A highly competitive, portable fellowship awarded to U.S. citizens and nationals who intend to pursue a doctoral degree.

**Ross Fellowship** (08/2017-08/2018)

- Awarded to doctorate degree-seeking students at Purdue University who demonstrate “superior academic achievement and scholarly abilities.”

## **Leadership and Teamwork Experiences**

### **ACerS President Council of Student Advisors (PCSA) (06/18 –Present)**

- Represented students' interests to the American Ceramic Society (ACerS) .

### **Purdue Materials Science & Engineering Graduate Student Association (07/18 – Present)**

#### *Social Chair*

- Organized and held events to encourage comradery and collaboration between graduate students within and outside the materials science department.

### **Materials Advantage Congressional Visit Day (04/2018)**

- Organized and held meetings with members of congress and congressional staffers in order to lobby for STEM funding.

### **Purdue Springfest (04/2018), Purdue Nanodays (04/2018), Purdue Space Day (10/2017)**

- Mentored kids grades K-12 to become interested in STEM by running science-themed educational activities.

### **Materials Bowl Team, University of Alabama (09/2015 – 03/2017)**

#### *Captain (08/2016 – 03/2017)*

- Organized and ran weekly practice sessions to prepare for competition.
- Planned five-person trip to annual Materials Bowl competition in San Diego.

#### *Team Member (09/2015 – 03/2017)*

- Collaborated to further knowledge and strategize for competition

### **Crimson Smash Club, University of Alabama (05/2015 – 05/2016)**

#### *Vice President*

- Promoted, organized, and ran monthly competitions of 50+ people smoothly and efficiently.

### **Honors Mentoring, Cottdale Elementary School (08/2013 – 12/2013)**

- Mentored and tutored local underprivileged elementary school students in math, reading, and writing.

## **Skills**

- Proficient with Microsoft Word, PowerPoint, and Excel
- Experience using VBA in Microsoft programs for data analysis
- Excellent written and verbal communication abilities
- Ability to effectively collaborate in multi discipline team environments