

Erich Weaver

erichaweaver@hotmail.com

Cell: 614-440-8302

1688 N Chauncey Ct
Lafayette, IN 47905

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 ft² clean room with more than 2,200 ft² 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 (GPA 3.86 / 4.00)

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

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

Publications and Presentations

Producing Dense B₄C Components Using Room-Temperature Injection Molding and Pressureless Sintering (01/2019, International Conference and Exposition on Advanced Ceramics and Composites)

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).
- Designed posters and flyers to expand recruitment demographics and international involvement

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