

Alyssa Blunt, EIT, BSME

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WORK EXPERIENCE

J.M. Miller Engineering, Inc.

Apr 2019-Present

Lead Project Engineer | Ann Arbor, MI

- Investigate, research, and analyze industrial accidents and consumer product design on behalf of industry, government, insurance, and legal fields
- Evaluate safety, human factors, and compliance with government regulations and standards
- Consult with industry executives on instruction manual and warnings design
- Develop national standards through participation in consensus committee activities
- Review, analyze, and organize thousands of documents for multiple projects simultaneously
- Litigation case work examples: water heater carbon monoxide poisoning, waste water treatment equipment fire, crane collisions, ice cream machine hand amputation, unintentional remote-control activation, forklift accidents, pressure cooker explosion, OSHA violations, agricultural and construction equipment accidents, bicycle fork failures, saw guarding, and more
- Consulting case work examples: instruction manual design for microwave ovens and UV light sanitation devices; laboratory testing of generators, winches, and ATV ramps; CPSC recall management for generators
- Design work: reverse engineered basketball hoop system and crematory stack roof installation

MC3 Cardiopulmonary

May-Sep 2016, Jan-May 2017, Sep-Dec 2017, Sep-Dec 2019

Product Development Co-Op | Dexter, MI

- Managed measurement system analysis for FDA-required component quality control; completed project early
- Performed Installation Qualification for clean room manufacturing equipment
- Validated test methods for design characterization and verification
- Designed laboratory fixtures such as anatomical model of aorta and heart for cannula recirculation testing

3M

Jun-Aug 2018

Design Engineering Intern | Maplewood, MN

- Increased production by approximately 20% by preventing line maintenance and down time with complete redesign of machine
- Upgraded manufacturing processes with low-cost modifications to existing equipment
- Maintained mechanical drawings for large assemblies and detailed components using Siemens NX

Engineering Learning Center

Nov 2015-Apr 2019

Supplemental Instruction Facilitator | Ann Arbor, MI

- Conducted weekly supplemental instruction sessions for 10-30 students to review physics concepts
- Led exam reviews for 50-100 students for introductory physics class to practice exam problem solving

University of Michigan Transportation Research Institute

Sep 2014-Aug 2015

Undergraduate Research Opportunity Program | Ann Arbor, MI

- Developed statistical models of pediatric head and adult thorax using FE models for use in injury assessment
- Performed in-depth investigations and collected data to verify injury assessment tool

EDUCATION AND LICENSING

University of Michigan | Ann Arbor, MI Aug 2019
Bachelor of Science in Mechanical Engineering | GPA 3.62/4.00

NCEES Fundamentals of Engineering Nov 2019

SKILLS

Regulations and Standards (ANSI, ASME, OSHA, CPSC, ISO, ASTM), Human Factors Analysis, Warnings and Instructions Design and Analysis, Recall Management, Test Method Development and Validation, IQ/PQ, Quality Control, Regulatory Compliance, FMEA, GD&T, SolidWorks (CSWA Certified), Siemens NX, AutoDesk Fusion 360, MATLAB, LabVIEW, Arduino, Minitab, Altair Hyperworks

INTERNATIONAL EXPERIENCE

International Summer School at Berlin University of Technology May-Jun 2019
3D Printing: From Macromolecule to Objects | Berlin, Germany

- Optimized polypropylene for 3D printing applications by adding calcium silicate to increase impact strength

Society of Women Engineers Overseas May-Jun 2018
Bharat Children's Academy and Junior College Camp Leader | Walchandnagar, India

- Pioneered entrepreneurship program that combines engineering, teamwork, and English skills for high schoolers

European Innovation Academy Study Abroad Program July 2017
Chief Technical Officer | Turin, Italy

- Identified user needs, developed a business plan, and pitched idea to 600+ mentors, investors, and students

LEADERSHIP ORGANIZATIONS

Society of Women Engineers 2014-2019
Social Officer | Ann Arbor, MI

- Promoted membership, inclusion, and diversity by planning and executing social and charity events on campus in collaboration with other identity-based organizations
- Encouraged young women and minorities to pursue engineering through outreach events with girl scouts and local high schools

Center for Education, Diversity, and Outreach 2017-2018
Mentor | Ann Arbor, MI

- Mentored students from low-income and minority backgrounds to help them achieve academic success in their first year of college

Pi Tau Sigma – Mechanical Engineering Honors Society 2016-2017
Service Chair | Ann Arbor, MI

- Fostered community within the organization through volunteer activities in Ann Arbor and the University

M-STEM Academy 2014-2016
M-Engin | Ann Arbor, MI

- Engaged in two-year program focused on developing academic and professional networking skills