# LUCAS LEE WEILER

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| **OBJECTIVE** | To utilize my education and experience to solve problems and develop technology |
| **EDUCATION** | **B.S. Mechanical Engineering,** Missouri University of Science and Technology<br>**Minor - Mathematics**                                                                 May 2017<br><u>**Overall GPA: 3.97**</u>          <u>**Major GPA: 4.00**</u><br>Honor Roll/ Dean's List: Fall: 2013, 2014, 2015, 2016, Spring: 2013, 2014, 2015, 2016 |

**RESEARCH EXPERIENCE**

**Undergraduate Research Assistant,** *Missouri S&T - Department of Mechanical Engineering*   Jan 2017 - Present
- Assisting in the development of a testbed for a cloud-based, cyber-physical manufacturing system consisting of a 3D printer, a desktop CNC mill, and a robotic arm
- Designing machine-to-machine communication protocols (written in Python, implemented with Raspberry Pis) for automation, control, and coordination of the cyber-physical manufacturing system

**INDUSTRY EXPERIENCE**

**Black & Veatch**          May – August 2016                    Overland Park, KS
- Lead a complete translation/redesign of a power plant reliability simulation software from FORTRAN to C# with the goals of designing an architecture that would allow future software enhancements and improving the output data format. Software improvements achieved: user-friendly data output, more precise maintenance modeling, error handling protocols, and a new operator's manual
- System tested recent changes made to the ASSET360 data analytics software
- Assembled/Organized power plant reliability, availability, and maintenance reports

**Unilever**          May – August 2015                    Jefferson City, MO
- Lead a Focused Improvement project for a production line case packer, utilizing World Class Manufacturing principles and an analytical problem solving approach (PDCA - Plan Do Check Act) to achieve a 2.1% increase in line efficiency
- Lead a design project to reduce the changeover time for the fingers of a production line bottle feeder by designing a tool-less locking mechanism that resulted in a 61% decrease in changeover time
- Collaborated with engineers to identify and diagnose mechanical problems in the plant

**Jviation**          May – August 2014                    Jefferson City, MO
- Compiled and formalized airport takeoff data for a MoDOT pavement condition report
- Drafted Construction Plans and Survey Exhibits in AutoCAD and Civil 3D
- Assembled/Compiled: Construction Reports, Design Reports

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| **VOLUTEER WORK** | International Service Trip to Romania<br>Concord Baptist Church Service Trips<br>*Tau Beta Pi* Service Projects<br>Construction Project for the Nonprofit Organization *Christmas in October* |

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| **LEADERSHIP ROLES AND ACTIVITIES** | Team Lead – Mechanical Senior Design Project | Jan – May 2017 |
| | Social Chair - *Tau Beta Pi* | Jan – May 2015 |
| | Student Advisor for *Pi Tau Sigma* | Nov – Dec 2015 |
| | Missouri S&T Miner Threat Ultimate Frisbee Team | Jan 2014 – Present |
| | Campus Christian Fellowship Band Member | Aug 2013 – Present |

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| **COMPUTER AND PROGRAMMING SKILLS** | Python, C/C++, C#, FORTRAN<br>Microsoft Excel, Microsoft Office<br>MATLAB/Simulink, LabVIEW<br>*Direct*LOGIC PLC Programming Software<br>AutoCAD, Siemens NX, Civil 3D |

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| **HONORS AND AWARDS** | *Tau Beta Pi* Engineering Honor Society<br>*Pi Tau Sigma* Mechanical Engineering Honor Society<br>*Kappa Mu Epsilon* Mathematics Honor Society<br>AP Scholar with Honor Award 2013 |