Samuel Jett

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EDUCATION

The University of Oklahoma | Norman, OK

 Master of Science in Mechanical Engineering | Cumulative GPA: ***3.86*** / *4.00* | May 2019

 Bachelor of Science in Mechanical Engineering | Cumulative GPA: ***3.99*** / *4.00* | May 2018

ENGINEERING PROJECT ROLES

Project Leader and Designer   *Nov. 2017 - May. 2019*

Dynamic Collagen Imaging Project | Biomechanics and Biomaterials Design Lab

- Developed a polarization-based wide-field optical system to quantify collagen fibers in tissues
- Designed a ***LabView*** script to allow synchronized control of system project, motor, and camera
- Analyzed images via custom-built ***Python*** scripts to isolate the collagen fiber orientations
- Employed system to assess microstructures in surgically-excised diseased human tissues
- Presented as MS competition finalist at the *World Congress of Biomechanics* (Su2018, Ireland)

Project Leader and Researcher   *Jan. 2017 - Nov. 2018*

Heart Valve Mechanical Testing | Biomechanics and Biomaterials Design Lab

- Quantified the biomechanics of heart valve tissue for improved valvular disease treatments
- Created protocol and led 5-person research team to examine regionally-varied valve mechanics
- Processed the mechanical data and developed figures for presentation through ***MATLAB***
- Presented research findings at the *Engineering Mechanics Conference 2018* in Cambridge, MA
- Published baseline results in July 2018 and regional testing results in November 2018

Design, Analysis, and Fabrication Engineer   *Jan. 2017 - Apr. 2018*

Student-Built Wind Tunnel Team | Max Westheimer Airport

- Designed various models of closed and open loop wind tunnel prototypes in ***Solidworks***
- Tested the designs in ***SW Flow Sim*** and ***ANSYS*** to examine flow characteristics and uniformity
- Fabricated the optimum design and performed experimental flow analysis with anemometer
- Published and presented results at the AIAA Region IV Student Conference, earning 2nd place

WORK EXPERIENCE

Internship in Robotic Process Automation   *Aug. 2018 – Dec. 2018*

American Fidelity Insurance Co. | Oklahoma City, Oklahoma

- Developed scripts in ***Visual Basic*** and implemented via UIPath to automate business processes
- Used HTML tags and Optical Character Recognition (OCR) to interact with business applications
- Saved legal team $30,000/yr through automating extraction of client documents for subpoena

Internship in Electronics and Payloads   *May 2017 - Aug. 2017*

Northrop Grumman | Melbourne, Florida

- Decomposed requirements document for clarification of design objectives in SATCOM program
- Defined and developed a novel tactical communications infrastructure for proposal bid
- Analyzed functionality of a communications module for deployment in alternative warfighters
- Wrote code in ***VBA*** to improve functionality of an employee directory management document

SCHOLARSHIPS AND ACCOLADES

Research Travel Awards from IBEST, School of AME, and OU-OUR   Apr. 2018

Undergraduate Mentored Research Fellowship   2017-2018

National Merit Scholarship   2014-2019