

MICHAEL A. STOKES
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(985)-707-2904

EDUCATION

Bachelor of Science in Mechanical Engineering, December 2020

The University of Alabama, Tuscaloosa, AL

University Honors Program

GPA: 4.00/4.00

COMPUTER SKILLS

Python, C++, MATLAB, Tecplot, SolidWorks, AutoCAD, Simplify3D, Linux, Origin, Office 365, Oracle

RESEARCH

Undergraduate Research Assistant, The University of Alabama

August 2019 - Present

Research Interests: Computational fluid dynamics, Gas Dynamics, Direct Monte Carlo Method, Pulsed Laser Ablation, and Selective Laser Melting

Research Projects:

- Computational investigation of plume expansion induced by irradiation of a copper target with donut-type and Gaussian laser beam modes
- Large-scale parallel simulations of vapor jets induced by irradiation of stainless steel targets with a continuous wave laser using the Direct Simulation Monte Carlo (DSMC) Method

Paper “The Effect of the Radial Beam Mode on the Plasma Shielding Effect and Expansion of Plumes Induced by Irradiation of Copper Target by Short-Pulse Lasers” is under preparation

WORK EXPERIENCE

Supply Chain/Manufacturing Co-op, GE Appliances

May 2019 - August 2019

Total Productive Maintenance, GE Appliance Park—Louisville, KY

- Drove plant improvement in autonomous and planned maintenance, calculated and tracked OEE data for the plant, participated in and helped lead three TPM events
- Acted as project engineer for the design and installation of an improved maintenance access to an industrial shredder centered around improving safety and mitigating risk

Supply Chain/Manufacturing Co-op, GE Appliances

August 2018 - December 2018

Advanced Manufacturing Engineering-Test and Controls, GE Appliance Park—Louisville, KY

- Created and developed a robotics test cell to interface an industrial PLC, Cognex Vision System, human machine interface, and Universal Robot Arm for 2D and 3D picking applications
- Prototyped Vision AI classifier using MVTec HALCON to detect production defects in RTV silicone seal
- Designed end-of-arm tooling for 6-axis industrial robots and mounting brackets for production using SolidWorks, AutoCAD, and Stacker4S 3D printer

Supply Chain/Manufacturing Co-op, GE Appliances

January 2018 - May 2018

Indirect Sourcing, GE Appliance Park—Louisville, KY

- Managed and lead multiple process improvement and cost out projects for the business in purchased services, contingent labor, fleet management, and utilities
- Supported six commodity buyers with risk management, price negotiation, and supplier RFPs

ACOMPLISHMENTS AND AWARDS

- Recipient of the Presidential Scholarship at The University of Alabama 2016 - 2020
- President’s List— August 2019, August 2018, January 2018, August 2017, January 2017
- The National Society of Collegiate Scholars, Member

EXTRACURRICULAR ACTIVITES

University Chorus

January 2019 - Present

- Member of the mixed performance-based choir at The University of Alabama

UA Red Cross (West Alabama Chapter)

January 2017 - January 2019

- Volunteered at food pantries, nursing homes, and blood drives

American Society of Mechanical Engineers (ASME)

August 2016 - Present

- Attend professional mechanical engineering networking events hosted by visiting companies