Marcella E. Miller

4558 Ridgestone Way
Medina, OH 44256
330.416.9614
mille5mc@mail.uc.edu

EDUCATION

Master of Engineering
Mechanical Engineering • GPA 4.00
University of Cincinnati, Cincinnati, Ohio
Expected May 2019

Bachelor of Science
Mechanical Engineering Major • Mathematics Minor • GPA 3.91
University of Cincinnati, Cincinnati, Ohio
Expected May 2019

MEMBERSHIPS & AWARDS

Tau Beta Pi Engineering Honor Society
Pi Tau Sigma Mechanical Engineering Honor Society
Cincinnatus Excellence Scholar
University of Cincinnati Honors Program

WORK EXPERIENCE

NSF I/UCRC for Intelligent Maintenance Systems
Undergraduate Researcher • Summer 2018
Applied machine learning techniques to physiological data from athletes to predict fitness and heart rate recovery patterns; modified analytics tool for segmenting and labeling intracranial and arterial blood pressure signals to facilitate cleaning and processing of patient data

Lincoln Electric
Plant Engineering – Consumables • Fall 2017
Designed and updated various components in the manufacturing plant environment to improve work conditions, increase safety, and prevent downtime; adapted chemical ore pit design to meet OSHA standards and minimize health risk

Magna Electronics
Mechanical Engineering – DAS Programs • Spring 2017
Developed an automated data processing program to replace intensive manual procedure; completed torque-to-failure studies to ensure proper manufacturing settings; performed optics testing on imager assemblies to verify image quality

Systems Engineering – DAS Programs • Summer 2016
Analyzed mileage accumulation data and documented defects to enhance object detection accuracy; collected system level verification data to ensure proper vehicle function and safety; organized database structure to store mileage accumulation data and test case results

Verification Engineering – ePump Programs • Summer/Fall 2015
Completed verification testing, including designing test fixtures and generating drawings, wiring and assembling stands for testing, writing test cases based on product specifications, and executing multiple test suites, for various electric oil pump models

TECHNICAL SKILLS

MATLAB, Python, Arduino, SolidWorks, Solid Edge, Siemens NX

ACTIVITIES

NSF I/UCRC for Intelligent Maintenance Systems
Research Experiences for Undergraduates Student • May 2017 – Present

National Society of Leadership and Success
Vice-President • January 2016 – Present