

MIKE W. HAMPTON

Mechanical Engineer (he/him)



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MikeWHampton

SKILLS

Programming

Proficient: MATLAB, Simulink,

Python, Visual Basic for

Applications

Prior Experience: Java, C++

CAD/CAE

Proficient: SolidWorks,

AutoCAD, OpenFAST

Prior Experience: PTC Creo,

Autodesk Inventor, Autodesk

Flow Design

Other

Proficient: Excel, Word,

PowerPoint, Git, Jira, SAFe,

MiniTab, IBM Maximo, Android

Studio, Jupyter Notebook,

Arduino IDE, Visual Studio

RELEVANT COURSEWORK

Vehicle Dynamics, Self-Driving

Cars: Perception and Control,

Connected Vehicles, Hybrid

Electric Vehicles, Design of

Digital Control Systems,

Battery Systems and Controls,

Project Management and

Consulting

INTERESTS

Serving homeless populations,

reading, teaching, endurance

racing, rock climbing,

environmental sustainability

EDUCATION

M.S. Mechanical Engineering

Aug 2019 – July 2020

University of Michigan – Ann Arbor

- GPA: 4.0/4.0, Passed NCEES Fundamentals of Engineering Exam (Jan 2020)

B.S. Mechanical Engineering

Aug 2015 – May 2019

Case Western Reserve University

- GPA: 3.9/4.0, *Magna Cum Laude*, Tau Beta Pi Honors Society, Fred Hale Vose Award for Demonstration of Professional Leadership in Mechanical Engineering

EXPERIENCE

Autonomous Emergency Braking Global Feature Owner

Oct 2020-Present

Ford Motor Company, Dearborn, MI

- Responsible for the AEB feature on over 4 million Ford and Lincoln vehicles sold annually worldwide.
- Lead the development of the feature through code and requirement updates, feature development, and end-to-end implementation of the AEB system by working closely with a cross-functional team of engineers, suppliers, and researchers to meet regulatory requirements in a way that protects both the customers and their fellow road users.
- Achieved “Top Performer” during every annual review after drastic improvements to performance producing the first ever EuNCAP 5-star rating on the Mustang Mach-E.
- Won 4 Ford Recognition Awards for outstanding work and team leadership and contributed to the Pre-Collision Assist Intersection 2.0 development which won a Henry Ford Technology Award.

Software Engineering Intern

May 2019 – Aug 2019

Parallax Hearing Company, Atlanta, GA

- Co-developed an Android app that processed and filtered sound to replace the microphone and processor currently used in traditional cochlear implant devices (Google Play Store: “Parallax Lite – Free Hearing App”).
- Used Java for the UI and C++ to filter sound inputs in real time with fastest audio latency in the industry.

Undergraduate Research Assistant

Dec 2017 - May 2019

Control and Energy Systems Center, Cleveland, OH

- Led a research project under Dr. Mario Garcia-Sanz (Program Director at ARPA-E and Case Western Reserve University Professor) on the application of Quantitative Feedback Theory to blade pitch controllers on onshore and offshore wind turbines.
- Employed a controller, designed in MATLAB, with a Simulink Interface to NREL’s OpenFAST simulation system to prove results.
- Project led to the creation of ARPA-E’s national ATLAS Challenge which invited Universities and Corporations for over \$175,000 in prizes.

Maintenance and Reliability Engineering Intern

Jun 2017 – Aug 2017

NASA Glenn Research Center, Cleveland, OH

- Used the IBM Maximo Database software to develop and grow a predictive maintenance program for testing facilities.
- Developed a spreadsheet-based optimization algorithm to produce a deferred maintenance funding plan for the research facility.

Manufacturing Engineering Intern

May 2015 – Aug 2015

Lenox Industrial Tools, East Longmeadow, MA

May 2016 – Aug 2016

- Wrote and implemented a worker-efficiency reporting program in Visual Basic for Applications that yielded savings of up to \$300,000 annually.
- Conducted efficiency studies on specific plant processes resulting in innovative