# Education

**Skills**

Jacob Fuher

Ann Arbor, MI | [jfuher@umich.edu](mailto:jfuher@umich.edu) www.linkedin.com/in/jacobfuher | https://jfgb.github.io

# Purdue University, West Lafayette, Graduate School December 2024

# Master of Science in Electrical and Computer Engineering (GPA 3.45)

# University of Michigan, Ann Arbor, College of Engineering December 2020

* Bachelor of Science in Electrical Engineering (GPA 3.3)

# Schoolcraft College

* Dual Enrolled and Guest Student (GPA 4.0)
* MATLAB, KNIME, LabVIEW, Multisim, Minitab, SPSS, Fusion 360, SQL, HUE, HTML, C++, Python,   
  Power BI, Microsoft Office and Google Suite

# Relevant Coursework

* + Graduate: Linear Algebra, Digital Signal Processing, Random Variables, Lumped System Theory,  
    Digital Communications, Hybrid Electric Vehicles, Computer Communication Networks
  + Optics, Photonics, Circuits, Signals and Systems, Electromagnetics, Semiconductor Devices
  + Probabilistic Methods, Engineering Statistics, Analysis of Societal Networks, Controls
  + Technical Communication for Electrical Engineers, Engineering Education, Ethics, Philosophy

**Employment**

**Leadership**

# General Motors | Electrical Service Release Engineer July 2022-Present

# Representing Service Engineering during the vehicle development process and partnering with product engineering teams to achieve world class serviceability

# Develop, validate, and implement common serviceability specifications, service part release/information and simultaneous production across multiple vehicle platforms

# General Motors | OpEx Leader – National ACDelco & Retail Accounts (TRACK) January 2022-July 2022

# Led OpEx Project regarding Part Supersessions and how they affect our National Account sales procedures, resulting in ~$6M annual savings

# General Motors | Data Analytics – Campaigns, Data Reports & GDM (TRACK) March 2021-December 2021

# Develop, maintain, and execute large data requests and reports by utilizing Knime, SQL, Power BI, VBA, and Microsoft Office

# Managed and structured the migration of the Aftersales Release Catalog as part of the Power BI Technology Ambassadors Team

# Co-Led my TRACK Cohort by organizing our meetings and discussions

# University of Michigan | Undergraduate Researcher Summer 2020

* Selected as participant in Summer Undergraduate Research in Engineering (SURE) Program
* Executed statistical analysis of large data sets using SPSS regarding students’ perceptions

and self-efficacy of entrepreneurship

* Compiled three large data sets for quantitative analysis
* Conducted a systematic literature review on the assessment and evaluation of experiential learning
* Developed curricula for a BME course incorporating self-directed, active, and collaborative learning

# University of Michigan | Summer Conference Assistant Summer 2019

* Managed coordination and support of client groups/guests to ensure effective use of the building and resources while ensuring a pleasant stay for clients/guests

**iD Tech Camps | Instructor** Summer 2018

* Taught Minecraft Game Design, Unreal Engine Level Design, and

Code Apps & Develop Games with C++ at the University of Michigan location to K-12 students

**Ford Motor Co. | Ford HSSTP Intern** Summer 2016

* Worked with system shifter team at Powertrain Engineering Driveline & Manufacturing
* Attended courses on manufacturing, engineering, and technology at the Research & Innovation Center

**Schoolcraft College | Kids on Campus Aide** Summer 2015-2017

* Taught Minecraft Modding, Web Design, and GameMaker to K-12 students

# Institute of Electrical and Electronics Engineers (IEEE) 2018-2021

* President, University of Michigan Student Branch
* Previous positions held: VP Finance, VP operations, Membership Chair

**Research**

# Transforming Engineering Education co-Laboratory (TEEL) 2020-2021

* Qualitative analysis of large data set regarding students’ perceptions and self-efficacy of entrepreneurship
* Co-authoring papers on experiential learning in engineering education (listed under publications)

**Crowds and Machines (Croma) Lab** 2019-2020

* Research on improving the quality of Senior CS students’ code by collecting in-class data via a simple coding assignment and performing a subsequent qualitative analysis
* Provided feedback to and tested multiple HCI-focused projects

**Michigan Balloon Recovery and Satellite Testbed (MBuRST)** 2019-2020

* + Participated in product research for solar panels, the successful deployment and recovery  
    of a satellite payload, presented to corporate sponsors in bi-annual meeting, and wrote   
    and refined multiple sections of the safety and launch manual
  + A subsidiary of the Student Space Systems Fabrications Laboratory (S3FL)

**Honors**

**Boy Scouts of America, Troop 54, Novi, MI** 2010-2017

* + Eagle Scout June 2016
  + Elected into the Order of the Arrow, Scouting’s National Honor SocietyAugust 2012

**Publications**

Cassandra Sue Ellen Jamison, **Jacob Fuher**, Annie Wang & Aileen Huang-Saad (2022) Experiential learning implementation in undergraduate engineering education: a systematic search and review, European Journal of Engineering Education, DOI: [10.1080/03043797.2022.2031895](https://doi.org/10.1080/03043797.2022.2031895)

Vempala, V., & **Fuher, J. F.**, & Dominguez, H. L., & Ogunbunmi, J., & Huang-Saad, A., & Shekhar, P. (2021, July), Students’ Self-Perception of Their Entrepreneurial Characteristics Paper presented at 2021 ASEE Virtual Annual Conference Content Access, Virtual Conference. <https://peer.asee.org/37773>

Dominguez, H. L., & Vempala, V., & Shekhar, P., & Huang-Saad, A., & **Fuher, J. F.** (2021, July), *Engineering Students’ Perceptions of Entrepreneurship: A Qualitative Examination* Paper presented at 2021 ASEE Virtual Annual Conference Content Access, Virtual Conference. <https://peer.asee.org/37076>

**Acknowledgements**

C. S. E. Jamison, V. Vempala, A. Wang, J. P. Stegemann and A. Huang-Saad, "What are biomedical engineering employers looking for in new hires? A Qualitative Synthesis," 2021 IEEE Frontiers in Education Conference (FIE), 2021, pp. 1-5, doi: [10.1109/FIE49875.2021.9637148](https://ieeexplore.ieee.org/abstract/document/9637148).