

# Jacob Fuher

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## Education

- Purdue University, West Lafayette, Graduate School** December 2024
  - Master of Science in Electrical and Computer Engineering (GPA 3.3)
- 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)

## Skills

- MATLAB, KNIME, LabVIEW, Multisim, Minitab, SPSS, Fusion 360, SQL, HUE, HTML, C++, Power BI, Microsoft Office and Google Suite

## Relevant Coursework

- Graduate: Linear Algebra, Digital Signal Processing, Random Variables, Lumped System Theory
- 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

- 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
- 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

## Leadership

- 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 Society August 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://doi.org/10.1109/FIE49875.2021.9637148).