

# Jacob Fuher

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## EDUCATION

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### Purdue University

*Master of Science in Electrical and Computer Engineering (Concentration: CNSIP)*

West Lafayette, IN

May. 2025

### University of Michigan

*Bachelor of Science in Electrical Engineering*

Ann Arbor, MI

Dec. 2020

### Schoolcraft College

*Guest Student*

Livonia, MI

## TECHNICAL KNOWLEDGE

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**Software:** TeamCenter, MATLAB, Python, KNIME, ADS, Power BI, LabVIEW, Multisim, Minitab, SPSS, Fusion 360, SQL, HUE, HTML, C++, Microsoft Office and Google Suite.

**Product Development:** Six Sigma Black Belt, ADVP&R, 2D/3D Verification, Bench Testing, and Familiarity with MVSS/SAE/ISO.

## EMPLOYMENT

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### Design Release Engineer (DRE), Switches/Controls

Apr. 2024 – Present

*General Motors*

Warren, MI

- Engineered, developed, released, continuously improved, validated, and defined requirements for switches and sensors across all vehicle platforms.
- Created, refined, managed, supported, and approved Engineering Change Requests, Part Usage Release, ADVP&Rs, 2D Customer Drawings, 3D Math, Regulatory Compliance (e.g. MVSS, GMW Standards), PPAP, VAVE, (Re)sourcing of Components, BOM Compliance, Best Practices, and Tier-N Resiliency.
- Commodity responsibilities included Door Lock Switches, Memory Seat Switches, Power Seat Switches, Dome Defeat Switches, Autonomous Ride Start/Stop Switches, and Break/Clutch Apply Sensors.

### Electrical Service Release Engineer

Jul. 2022 – Apr. 2024

*General Motors*

Warren, MI

- Represented Service Engineering during the vehicle development process and partnered with product engineering teams to achieve world class serviceability.
- Developed, validated, and implemented common serviceability specifications, service part release/information and simultaneous production across multiple vehicle platforms.
- Commodity responsibilities included All Customer Switches and Controls, SBZA Modules, RADARs, LiDARs, SAMs, and FTZMs.

### OpEx Leader – National ACDelco & Retail Accounts

Jan. 2022 – Jul. 2022

*General Motors*

Warren, MI

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

### Data Analyst – Campaigns, Data Reports & GDM

Mar. 2021 – Dec. 2021

*General Motors*

Warren, MI

- Developed, maintained, and executed 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.

### Undergraduate Researcher

Summer 2020

*University of Michigan*

Ann Arbor, MI

- 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.

## RESEARCH

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- 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).

## PUBLICATIONS

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- 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

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- 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)

## MISC.

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- Institute of Electrical and Electronics Engineers (IEEE)** 2018 – 2021
- President, University of Michigan Student Branch.
  - Previous positions held: VP Finance, VP operations, Membership Chair.
- Boy Scouts of America, Troop 54, Novi, MI** 2010 – 2017
- Eagle Scout (*Jun. 2016*).
  - Elected into the Order of the Arrow, Scouting's National Honor Society (*Aug. 2012*).