Zach Kutschke

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Education **Massachusetts Institute of Technology**

• Candidate for B.S. in Mechanical Engineering, GPA 4.8/5.

Jun 2021

Cambridge, MA

- NEET Advanced Materials Machines thread.
- Coursework includes Thermal-Fluids Engineering, Dynamics and Controls, Mechanics and Materials, Design and Manufacturing, and Analog Electronics.

ETH Zurich

- Exchange student in the Department of Mechanical and Process Engineering.
- Coursework includes Metal Additive Manufacturing, Quantum Mechanics, Risk Analysis, Energy Systems and Power Engineering, and Nonlinear Controls.

Zurich, CH

Feb - May 2020

Professional BD Medical - Advanced Diabetes Care

Experience Summer Intern, Research and Development

Andover, MA Jun - Aug 2019

- Designed, built, and programmed automated testing equipment to improve the manufacturing efficiency of their new product line.
- Assisted in generating a new testing method and specification for pressure decay/leak rate of critical components of a new insulin delivery device.
- Designed and ran experiments to characterize materials and prove component designs.

Musashi Auto Parts - Michigan

Summer Intern, Engineering Department

Battle Creek, MI

- Jun Aug 2018
- Designed and built computer controlled tool cart to aid in machine installation.
- Assembled machinery and production lines to expand production output.
- Collaborated to design custom holders for production line operators' gauges and measuring equipment.

Musashi Auto Parts - Michigan

Battle Creek, MI Jul - Aug 2017

Summer Intern, Engineering Department

- Built testing apparatus and conducted experiments to determine acceptable leak rate of gear assemblies.
- Learned GTAW and GMAW processes, plasma cutters, mills, lathes, etc.
- Assisted in generating new specifications for production lines to catch faulty parts.

Rosler Metal Finishing USA, LLC

Warehouse Associate

Battle Creek, MI Jul - Aug 2016

• Utilized SAP-ERP system to receive, locate, and control inventory.

Leadership Experience

MIT Solar Electric Vehicle Team

Business Lead & Mechanical Team

Cambridge, MA 2018 - Present

- Helped design, analyze, and manufacture portions of the mechanical system (brakes, suspension, etc).
- Wrote a quickstart guide for setting up and running static simulations in Solidworks.
- Acquired and maintained sponsors, funding, and support for the team.

Skills & **Interests** Skills: Inventor, Solidworks, Machining & Welding, Arduino, MatLab, Python,

Languages: Conversational German.

Interests: Photography, Weight Lifting, Making, Judo.