

# Michael Aksen

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## EDUCATION

**Rensselaer Polytechnic Institute (RPI), Troy, NY** May, 2023  
*Master of Engineering in Mechanical Engineering* **GPA: 3.3/4.0**

**Rensselaer Polytechnic Institute (RPI), Troy, NY** May, 2022  
*Bachelor of Science in Mechanical Engineering* **GPA: 3.6/4.0**

## RELATED COURSEWORK

- Intro to Finite Elements:
  - Solved 1d, 2d, and 3d static and dynamic problems using analytical FEA methods and NX Nastran
- Manufacturing Processes and Systems Lab I, II:
  - Built 300 toy airplanes alongside a team of 12 students using various industrial processes
  - Designed and manufactured a forming die to make 300 wheel axles under DFM considerations
  - Programmed pick-and-place robot operations to ultrasonically weld injection molded wing halves
- Robotics I:
  - Implemented FK, IK, PID control, and obstacle avoidance in a DOFBOT robot with a partner

## SKILLS & AWARDS

- Software: NX, NX Nastran, SolidWorks, AutoCAD, Octopuz, Mastercam, Excel
- Manufacturing: Manual Machining, 3D Printing, MIG Welding, Waterjet
- Programming: Java, PLC Ladder Logic, Python, MATLAB, Arduino C, SQL
- FE Certified, '21 Gene Haas Manufacturing Award Recipient, '20 RPI Elevator Pitch Competition 3<sup>rd</sup> Place

## WORK AND RESEARCH EXPERIENCE

**The Factory Amsterdam, Engineering Intern, Amsterdam, NY** June 2021-Present

- Designed a fixture to mill parts in a 5-axis CNC Mill
- Retrofitted a PLC unit and used ladder logic to modernize an industrial bandsaw for robust stock cutting
- Implementing Smart Manufacturing into the bandsaw by converting digital and analog machine signals into actionable operational insights

**USPS, Vehicle Engineering Intern, Merrifield, VA** January 2020-April 2020

- Designed and manufactured a fixture to simulate an autonomous delivery vehicle
- Learned MIG Welding Techniques and gained experience with various shop equipment

**BrightLogic, Software Engineering Intern, Midland Park, NJ** September 2017-July 2018

- Worked on Angular JS front-end development alongside a C# back-end for a mobile app
- Involved in long-term projects, automated testing, and bug fixes

## ACTIVITIES

**RPI Habitat For Humanity, President, RPI** August 2018-Present

- Volunteered at construction sites in Schenectady & Glens Falls, NY and Pittsfield, MA
- Led club in meetings and organized club activities during the '20-'23 school years; VP of Finance in 2019

**Rensselaer Electric Vehicle, Member, RPI** September 2022-Present

- Developed a plug for a Carbon-Fiber mold for protective wheel guards on our vehicle