William (CJ) Crocker

w.crocker@mail.rit.edu | (508) 409-8838 | Rochester, NY / Boston, MA | LinkedIn: w-crocker

ACADEMICS

Rochester Institute of Technology, Rochester, NY — Est: May 2028

Candidate for Bachelor of Science in Mechanical Engineering

Relevant Courses: Fluid Mechanics, Dynamics, Differential Equations, Calculus I–III, Circuits I, Strength of Materials I, Thermodynamics I, Statics

Activities: RIT Baja SAE, RIT VexU Robotics, Various Intramural Sports

Awards: Dean's List Fall 2023 & Spring 2024

SKILLS AND INTERESTS

Engineering & Design Software: SolidWorks, Autodesk, Onshape, ANSYS, PDM

Programming & Simulation: NI-LabVIEW, MATLAB, Simulink, Java, C++

Enterprise & Quality Systems: Microsoft Office (Word, Excel, PowerPoint, Outlook), SAP (ERP), Arena (QMS)

Machining / Fabrication: Lathe, Manual & CNC Mill, Tensile & Torsion Testing Machinery, 3D-Printing (FDM and SLS)

PROFESSIONAL EXPERIENCE

Insulet Corporation — Acton, MA

Supplier Quality Engineering Co-Op — July 2025 - Present

- Managed multiple long-term CAPAs, including a company-wide PCBA qualification, by coordinating tooling documentation and validation workflows through Arena and collaborating with global partners
- Contributed to a company-wide initiative to streamline the PCBA BOM process, leveraging Arena to enhance supplier efficiency and documentation consistency
- Led a cross-functional effort to establish tool-level manufacturing traceability across global operations, utilizing SAP to integrate data and improve visibility
- Executed engineering change orders and collaborated directly with suppliers to resolve and propose solutions to quality issues via EQARs and on-site engagement

RIT Baja SAE — Rochester, NY

CVT Designer — July 2025 - Present

- Set annual goals and make data-driven decisions through extensive research to ensure designs meet system requirements and exceed expectations
- Design and refine the 2026 competition CVT in SolidWorks, supported by performance modeling in Excel, MATLAB, and FEA simulations in ANSYS and SolidWorks
- Analyze previous CVT designs and failure data using a custom dynamometer to guide iterative improvements

CVT Cover Designer / Driveline Member — August 2024 - July 2025

- Designed the custom CVT cover in SolidWorks, contributing to driveline performance and durability for the 2025 competition vehicle
- Supported component validation through torsion testing and FEA, collaborating with team members to ensure race-level reliability
- Fabricated precision parts using lathes, mills, laser cutting, and metal bending tools, playing a key role in the vehicle's assembly and testing

RIT Mechanical Engineering Department — Rochester, NY

Teaching Assistant – Engineering Design Tools — January 2024 – May 2025

- Guided 34 undergraduate students through their robotic chime machine projects, fostering their engineering skills and problem-solving abilities
- Provided clear and constructive feedback and leadership to students on their assignments and projects, improving their understanding of course material

ACADEMIC PROJECTS

Beam Vibration & Acceleration Project — Rochester, NY

- Analyzed the vibration and acceleration response of a beam system under dynamic loading using accelerometer and strain gauge data to evaluate resonant frequencies and structural behavior, all programed in NI-LabVIEW

Robotic-Chime Machine Project — Rochester, NY

- Designed and built a robotic chime machine using Onshape, Arduino IDE, and hand tools; showcased at *Imagine RIT*