

DAMON BROWNELL

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OBJECTIVE

Highly driven and results-oriented mechanical engineering student with a proven track record in innovative design, rigorous testing, and precision manufacturing. Seeking an opportunity to apply my dynamic skill set and passion for problem-solving in an entry-level engineering role that fosters creativity, collaboration, and professional growth.

EDUCATION

Bachelor of Science in Mechanical Engineering

Clarkson University – Potsdam, NY

GPA: 3.5 | Expected Graduation: May 2025

- Lead enhancements in driver performance as the ergonomics subsystem lead for the 2023/24 Baja SAE team.
- Participated in founding Clarkson's branch of the Materials Advantage Club as ongoing Secretary; fostering knowledge sharing, and organizing events.
- Acquired knowledge in advanced CNC machining, including precision milling and lathing techniques.
- Performed detailed torsional testing on axle assemblies, driving data-backed team decisions.
- Engineered composite materials for structural analysis and reliability testing.
- Conducted rigorous strength validation of welded joints to support project benchmarks.

Associate of Science in Mechanical Engineering Technology

Hudson Valley Community College – Troy, NY

GPA: 3.8 | Graduated: May 2022

- Inducted into Tau Alpha Pi Engineering Honors Society for academic excellence.
- Mastered advanced SolidWorks modeling and finite element analysis (FEA) techniques.
- Executed metallurgical heat treatments and performed comprehensive materials testing in lab environments.

EXPERIENCE

Engineering Intern

BDP Industries – Greenwich, NY (May 2022 – Present)

- Designed and optimized a 4" Venturi mixer to meet stringent specifications.
- Conducted polymer testing with diverse wastewater scenarios to refine product applications.
- Modeled complex components with SolidWorks and AutoCAD to streamline production.
- Revamped electrical schematics to streamline compliance and enhance operational clarity.
- Authored comprehensive hydraulic line documentation, facilitating seamless equipment integration.
- Contributed to UL certification by preparing regulatory-compliant product documentation.

Line Cook/Delivery Driver

Schag-a-Val – Schaghticoke, NY (September 2019 – December 2022)

- Coordinated in a high-pressure environment to deliver superior customer service.
- Innovated food preparation techniques, enhancing meal quality and customer satisfaction.

Technology Intern

Greenwich Central School District – Greenwich, NY (May 2014 – June 2019)

- Installed, maintained, and upgraded cutting-edge technology infrastructure, including surveillance systems, network hardware, and student devices.
- Diagnosed and resolved IT issues to ensure uninterrupted operation of critical systems.

TECHNICAL SKILLS

Engineering Intern

BDP Industries – Greenwich, NY

- Engineering Design: SolidWorks, AutoCAD
- Regulatory Compliance: Documentation preparation for UL certifications

KEY PROJECTS

FIRST Robotics Team

Greenwich CSD (2017–2020)

- Designed and refined competition-ready robotic systems, driving team success.

Autonomous Lathe System

Hudson Valley Community College (2022)

- Automated communication between a robotic arm and lathe for efficient small-scale manufacturing.

Clarkson Baja SAE Team

Clarkson University (2022–Present)

- Directed ergonomic design enhancements for the 2024 season vehicle, prioritizing user experience.
- Engineered a durable 4WD shielding system for improved vehicle reliability during the 2023 season.
- Conducted advanced FEA analysis of composite materials to ensure safety and optimize performance.

RELEVANT COURSEWORK

- Mechanical Vibration and Control
- Adv. Engineer. Math
- Intro. to Heat Transfer
- Dynamical Systems
- Intermediate Fluid Mechanics
- Welding Metallurgy
- Thermodynamic System Engineering
- Computer Aided Design
- Materials Science and Engineering II
- Advanced Manufacturing Processes