

# Keertik Bacon

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## Objective

Driven and self-motivated mechanical engineering student with experience in product development and manufacturing, with strong interpersonal, communication, and leadership skills. Versatile and adept at collaborating with multi-disciplinary teams, working in high-paced environments, and problem solving. Looking for an engineering internship starting Summer 2023.

## Education

**Georgia Institute of Technology | Atlanta, GA**

Bachelor of Science in Mechanical Engineering, GPA 3.85

Minor in Aerospace Engineering

*August 2020 – Present*

Expected Graduation, Dec. 2024

## Skills

**Computer-Aided Design:** SolidWorks, Autodesk Inventor, PTC Creo, Finite Element Analysis (FEA), Computational Fluid Dynamics (CFD)

**Manufacturing:** 3D printer, laser cutter, CNC mill, metal and wood shop tools

**Electronics:** Arduino UNO, programmable logic controllers (PLC)

**Programming:** Java, Python, C++, MATLAB, HTML, CSS

**Certifications:** Certified SolidWorks Professional – Mechanical Design (CSWP)

**Other Software:** Cura, 3DPrinterOS, GrabCAD, Microsoft Office, Inkscape, GitHub, Blender

**Communication:** Presentations (large and small audiences), written communications, engineering documentation

**Languages:** English (native), French (conversational), Tamil (conversational)

## Experience

**Honda Development and Manufacturing of America | Anna, OH**

*August 2022 – Present*

**Student Associate, Drivetrain Manufacturing Department**

- Redesigning and prototyping latching mechanism in rejected parts outflow bin to fix misalignment issues, decreasing troubleshooting time and thus increasing assembly line efficiency
- Developing vision system to detect incorrect assembly of transmission pulleys, enabling faster detection and recovery

**Naval Nuclear Laboratory | West Mifflin, PA**

*June – August 2022*

**Technical Intern, Thermal-Hydraulic Technology/Engineering**

- Designed and oversaw construction of hydraulic loop to check calibration of water flow meters, decreasing calibration time from 6 months to a few hours

## Relevant Coursework

**Engineering Graphics:** Concept sketches; computer-aided design; engineering drawings

**Dynamics of Rigid Bodies:** Kinematics and kinetics of particles and rigid bodies in one, two, and three dimensions; Newton-Euler equations; work-energy and impulse-momentum principles

**Creative Decisions and Design:** Product development (research, design, testing); manufacturing; mechatronics and robotics design; design reviews; group project work

## Activities

**RoboJackets | Atlanta, GA**

*September 2020 – Present*

**RoboRacing Mechanical Engineer (September 2020 – Present)**

- Designed mounting hardware and waterproof casing for an autonomous go-kart braking system, helping the go-kart win 2<sup>nd</sup> place at the 2021 evGrand Prix Autonomous competition
- Led a team of two new members in redesigning the go-kart braking system for the 2022 competition, enabling more precise control over the brakes and reducing motor strain

**Shop Manager (December 2021 – September 2022)**

- Embarked on machine shop modernization initiative by replacing old and dwindling tool supplies, disposing of unused tools and materials, and planning new storage shelves, improving space efficiency
- Managed \$1000 shop tooling budget and submitted periodical bill requests for funding, ensuring that all five RoboJackets teams and 415 dues-paying members had access to the tools they needed to work and meet competition deadlines