# 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** *August 2020 – Present*
Bachelor of Science in Mechanical Engineering, GPA 3.85 Expected Graduation, Dec. 2024
Minor in Aerospace Engineering

## 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*
***Manufacturing Engineering Co-Op***

- Designed latch for rejected parts outflow bin to replace a design prone to misalignment, reducing troubleshooting time
- Implemented vision system to detect incorrect assembly of CVT pulleys, enabling earlier detection and faster recovery
- Developed electronic checklist to aid operators in resetting assembly robots after errors, reducing the likelihood of mistakes that could lead to further errors and potentially cause parts to collide and become damaged

**Naval Nuclear Laboratory | West Mifflin, PA** *June – August 2022*
***Hydraulic Engineering Intern***

- 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
**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 2nd 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, utilizing a vice-grip inspired design to enable more precise control over the brakes and reduce 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, to improve 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