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 of America Manufacturing | Anna, OH *August 2022 – Present*
Student Associate, Drivetrain Manufacturing Department

- Redesigning latching mechanism in rejected parts outflow bin to mitigate issue of bin lid closing in a misaligned manner, 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*
Shop Manager (December 2021 – Present)

- Embarked on machine shop modernization initiative by replacing old and dwindling tool supplies, and in the process of designing new shop layout and sheet stock storage, to improve space efficiency
- Manage $1000 shop tooling budget and submit periodical bill requests for funding, to ensure that all five RoboJackets teams and 415 dues-paying members have access to the tools they need to work and meet competition deadlines

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, enabling more precise control over the brakes and reducing motor strain