Jacob Beauchamp

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Education:

Bachelor of Science in Mechanical Engineering Colorado State University (CSU), Fort Collins, Colorado

Expected Graduation Date: May 2024
Current GPA: 3.76

Certifications and Achievements:

Certified Solid Works Associate (CSWA) — December 10, 2021
Colorado State University Dean's List — Fall 2020, Spring 2021, Spring 2023

Work Experience:

Integrated Power Systems Control Engineer, Caterpillar — Summer 2023
- Worked on the Articulated Truck Controls team, focusing on providing quality solutions to the Collision Avoidance (CA) feature using Simulink to develop and modify the command arbitration
- Wrote documentation on the CA feature to assist future developers in working on the feature. This included FMEA's and SRS documentation
- Developed a C++ testing environment used to simulate and test the CA feature before on machine testing to verify effectiveness of code but also to reduce time and cost at location
- Performed on machine testing and tuning of the machine and its features at the proving grounds using Vector CANape to perform tests according to a self-produced testing plan

Learning Assistant/Lab Instructor, CSU — August 2021 – Current
- Help create an inclusive learning environment where students feel encouraged to engage in class and help fill in gaps that occur in lecture content.
- Teach numerical methods, algorithm programming and advanced problem-solving techniques using MATLAB
- Educate students in advanced problem-solving skills with MATLAB, Arduino programing and Excel

Design Your World Leader, CSU — Summer 2022
- Led and facilitated team projects for students where groups designed and programmed line following robots and submarines using SolidWorks and C++ to compete in a competition

Leadership and Involvement:

Mechanical Engineering Executive Board — May 2022 – Current
- Liaise between Mechanical Engineer student body and department to support colleges goals of community.
- Host various student and faculty events to encourage and foster a sense of community within the college

Member, Ram Robotics, CSU — August 2020 – May 2021
- Worked with fellow engineering students to engage in community and encourage younger students to pursue science

Relevant Skills:

-MATLAB	-Python	-SolidWorks/CAD	-CNC Manufacturing	-C++ Programming
-LabVIEW	-Simulink	-Microsoft Suite	-Python Programming	-Vector CANape
-Additive Manufacturing		-Control Systems	-Git/Github/Gitlab	-Control Testing