Ryan Andrew Gauthier

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robotsbyryan.com

Education

California State University, Fullerton August 2017 – May 2020
Bachelor of Science in Mechanical Engineering, Minor in Computer Science
Graduated Cum Laude with 3.52 GPA overall, Dean's List last four semesters
Relevant Electives:

- Mechanical Control Systems: modeling and control of systems involving sensors and actuators
- Intro to Mechatronics: electromechanical component selection and simulation
- Intro to Continuum Mechanics: fundamental physics of fluids and solids and their applications
- Web Back-End Engineering: developing and utilizing modern web applications and services

Fullerton College August 2014 – May 2017

Technical Skills

Software: Arduino IDE, AutoCAD, Bootstrap, C, C++, CSS, Flask, GitHub, HSMWorks, HTML, JavaScript, Linux, MATLAB, Microsoft Office, MySQL, Python, SolidWorks, Ultimaker Cura, Unreal Engine 4
Hardware: Bandsaws, breakout boards, calipers, drill presses, drills and taps, electronic components, FDM 3D printers, files, Haas CNC Mills, manual mills, microcontrollers, multimeters, picks and punches, rotary tools, shears, soldering irons, various abrasives, waterjets

Current Project

Web-Enabled CookieBot: Developing a robotic system able to bake cookies on a livestream according to aggregated requests. Completed initial landing page via Bootstrap and custom JavaScript with a SQLite back-end and now serving via AWS. Currently working on actuator development and Twitch integration.

Relevant Projects

CSUF Student Design Team - Titan Rover September 2017 – June 2020

- Designed, developed, and tested a competitive mobile robotic platform as part of a highly interdisciplinary team for the University Rover Challenge
- Designed, manufactured, and tested a three degrees of freedom robotic arm for use as a soil excavator as part of the Science sub-team, which was featured in the capstone video
- Redesigned in SolidWorks and fabricated via 3D printing a wireless button-pressing assembly for use by a robotic gripper using various off-the-shelf components and microcontrollers
- Implemented a stepper motor with potentiometer feedback via an Arduino Uno communicating over serial with a Raspberry Pi to facilitate rotation of a base station antenna
- Developed spreadsheet scripts in Google Sheets to assist with budgetary needs, including an automated email system and interactive master budget

Work History

Part-time Storekeeper November 2016 – July 2021
Gauthier Enterprises Inc Brea, California

- Performed various general shopkeeping duties in a convenience store context, including stocking, cashiering, and cleaning
- Received, validated, and delivered prepared orders with values in the mid thousands weekly