

Ryan Andrew Gauthier

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I'm a deeply curious recent BSME graduate with a penchant for software

Summary of Qualifications

- Experienced in design, prototyping, and integration of electromechanical systems
- Able to utilize 3D modeling software alongside 3D printing, CNC milling, and other basic fabrication and post-processing techniques to bring designs from initial concept to realization
- Strongly familiar with stepper motors and a variety of sensors
- Experienced in programming, with a focus on C and Python-based applications
- Comfortable on teams with a variety of skills and mindsets

Education

California State University, Fullerton

August 2017 – May 2020

Bachelor of Science, Mechanical Engineering, Minor in Computer Science

Overall GPA: 3.52/4.00

Fullerton College

August 2014 – May 2017

Relevant Experience

CSUF Student Design Team - Titan Rover

September 2017 – June 2020

- Exposed to a highly interdisciplinary environment working directly alongside students from a variety of technical fields as we sought to design, develop, and test a mobile robotic platform for the University Rover Challenge
- Implemented a stepper motor with potentiometer feedback via an Arduino Uno to facilitate rotation of a base station antenna to maximize signal strength
- Developed spreadsheet scripts in Google Sheets to assist with budgetary needs, including an automated email system and interactive master budget
- Redesigned in SolidWorks and fabricated via 3D printing a button pressing assembly for use by a robotic gripper using an ESP32 microcontroller, a relay, laser pointers, and a solenoid
- Designed, manufactured, and tested a three degrees of freedom robotic arm for use as a soil excavator as part of the Science sub-team. Functioning arm was featured in the capstone video

Relevant Elective Courses

ME: Mechanical Control Systems

Intro to Mechatronics

Analytical Methods in Engineering

Intro to Continuum Mechanics

CS: Data Structures

File Structure and Database Systems

Intro to Game Design

Web Back-End Engineering

Technical Skills

Software: Arduino IDE, AutoCAD, C, C++, Flask, GitHub, Google Sheets, Drive, Docs, Slides, and Scripts, HSMWorks, Linux OS, MATLAB, Microsoft PowerPoint, Word, Excel, and Visual Studio, MySQL, Python, SolidWorks, Ultimaker Cura, Unreal Engine 4

Tools: Bandsaws, calipers, Dremel tools, drill presses, drills and taps, FDM 3D printers, files, Haas CNC Mills, manual mills, multimeters, picks and punches, shears, soldering irons, various abrasives, waterjets

Certifications and Awards

- Dean's List last 5 semesters, straight A's last 4 semesters
- Multiple speaker awards from time on Fullerton College Speech and Debate team
- HAM Radio Technician certified – call sign KM6RZR