

# Ryan Andrew Gauthier

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## Relevant Projects

### CSUF Student Design Team - Titan Rover

September 2017 – June 2020

- Designed, developed, and tested a competitive mobile robotic platform as part of highly interdisciplinary student 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

## 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

### Fullerton College

August 2014 – May 2017

## 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, Bootstrap, C, C++, Flask, GitHub, HSMWorks, JavaScript, Linux OS, MATLAB, Microsoft Office, MySQL, Python, SolidWorks, Ultimaker Cura, Unreal Engine 4, Web Technologies

**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

## 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

## 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