

Ryan Andrew Gauthier

ryangauthierformal@gmail.com

(714)949-2587

linkedin.com/in/ryan-gauthier-17a876141/

Education

California State University, Fullerton

January 2023 – December 2024

Master of Science in Computer Science

California State University, Fullerton

August 2017 – May 2020

Bachelor of Science in Mechanical Engineering, Minor in Computer Science

Fullerton College

August 2014 – May 2017

Work History

Boeing

Long Beach, CA

Quality Systems Specialist

Contracted June 2023 – January 2024

- Developed a defacto onboarding process to better integrate software talent
- Facilitated process improvements through automation, digitalization, and modeling
- Assumed duties as focal for a critical portion of a newly launched development project involving model-based systems engineering, more fully developing an initial architecture, producing an initial draft of several system subcomponents, and collaborating with teammates of varying skills and experiences

Technical Skills

Languages: Bash, C, C++, HTML & CSS, JavaScript, MATLAB, Python, SQL

Software, Technologies, & Libraries: 3D Design (AutoCAD, SolidWorks);

Machine learning (Keras, numpy, pandas, PyTorch, TensorFlow); Linux utilities (Ubuntu, WSL);

Mechatronics support (Arduino, Raspberry Pi);

Web technologies (AWS, Azure, Bootstrap, Caddy, CDN, Flask, GCP, Unicorn, HTTP, JSON, Node.js, REST, Socket.IO); Game development (pygame, Unreal Engine 4);

General use (containers, GitHub, MS Office, MySQL, regex, virtual machines, Visual Studio Code)

Hardware: Electronics (electronic component selection, batteries, LEDs, multimeters, soldering, wiring);

Machine shop (calipers, drawings, drill presses, drills and taps, FDM 3D printers, machining, manual mills, files, Haas CNC mills, picks and punches, rotary tools, shears, various abrasives, waterjets);

Mechatronics (microcontrollers, motor drivers, motors, sensors)

Projects

CSUF Student Design Team - Titan Rover

September 2017 – June 2020

- Engaged in design reviews spanning the conceptual, preliminary, and critical phases of the project, communicating suggestions and receiving feedback in a polite and productive manner
- Utilizing Solidworks, personally designed, sourced, manufactured, and tested a fully operational three degrees of freedom robotic arm for use as a soil excavator
 - Leveraged both HSMWorks G-code and toleranced drawings to guide CNC machining on a Haas mill with parts supplied from local vendors
 - Successfully integrated system onto rover, troubleshooting various emergent issues, ultimately producing a functional subsystem both within budget and ahead of schedule
- Redesigned in SolidWorks and fabricated via 3D printing a battery-powered laser pointer-guided remotely actuated solenoid button pressing assembly for use by a robotic gripper
 - Developed schematic, wired up components, and programmed the ESP32 controller, upgrading the communications system from UART to WiFi
- 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