

# GIO CERUTTI

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## EDUCATION

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### **B.S. Mechanical Engineering, Clarkson University**

May 2024

Minor: Computer Science

Relevant Graduate Coursework: Vibration Modeling & Control, Deep Learning, Symbolic Artificial Intelligence

GPA: 3.9

Organizations: CU Formula Student, Mountain Bike Team, Outing Club, AIAA, ASME

## EXPERIENCE

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### **Avionics Engineer, Systems Integration & Test**

June 2025 - Present

*Northrop Grumman*

*Elkton, MD*

- Own acceptance testing of 10-channel motion control system for second stage solid rocket motor in transition to production
- Lead avionics assembly & checkouts from actuator all the way to final vehicle assembly
- Leading hardware pedigree review automation, which will take engineers out of the loop and reduce pedigree review labor by 96% in the worst case
- Own controller software reprogramming, including nozzle null offset alignment & other tunable parameter adjustments
- Owner of electrical ground support equipment builds & maintenance
- Execute final data review & present results to customer

### **Associate Systems Engineer**

May 2023 - June 2025

*Northrop Grumman*

*Baltimore, MD, Potsdam, NY, & Saratoga Springs, NY*

- Owned & wrote product line engineering methodology documentation for the NG product line center of excellence
- Developed custom data pipelines for adoption tools and product line metrics generation
- Led development of automatic knowledge dependency detection tool to keep documentation up to date
- PLE documentation continues to save non-recurring engineering costs for internal product lines

## PROFICIENCIES

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### **Software**

CAD (Onshape, Solidworks), pure::variants

### **Programming Languages**

Python (TF, Pytorch, SB3, Gym, NumPy, Pandas), MATLAB, C/C++

### **Certifications**

Active DoD Secret Clearance, FCC Radio Technician (Element 2) License

### **Hobbies**

Mountain biking, bike maintenance, auto maintenance, RC, making

## PROJECTS

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### **Deep Quantitative Agent**

November 2023 - Present

*Ausable Analytics LLC*

*Saratoga Springs, NY*

- Designed & implemented RL agents using fully-custom RL environments & training schemes, thanks to advanced large scale data collection, cleaning, & augmentation
- Implemented and deployed models on Nvidia hardware
- Independent research project structured as LLC

### **Clarkson Formula SAE**

August 2022 - May 2024

- Composite axle: Researched, designed, fabricated, & tested composite axle prototypes
- Composite layups: Laid up CFRP components, especially aerodynamic surfaces

### **Other Projects**

- Electric coffee grinder conversion (2024), simulation boundary layer visualizer (2022), modular micro quadcopter frame (2025)