GIO CERUTTI

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EDUCATION

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

Associate Systems Engineer, Product Line Alignment July 2024 - Present
Northrop Grumman *Saratoga Springs, NY*

- Managed product line engineering documentation for the NG product line center of excellence
- Wrote tutorials such as *Managing C++ Codebases Using the PLE Software Pure::Variants*
- PLE documentation continues to serve as a resource for NG product lines moving to feature-based PLE

Systems Engineering Intern, Product Line Alignment May 2023 - May 2024
Northrop Grumman *Baltimore, MD & Potsdam, NY*

- Worked across functional teams to develop PLE adoption tools
- Developed custom data pipeline from Confluence to MS SQL to Tableau as backend for adoption tools
- Adoption tools help NG product lines adopt methodologies to save non-recurring engineering costs

TECHNICAL STRENGTHS

Software	CAD (Onshape, Solidworks, Fusion, NX), ANSYS Fluent, pure::variants, Tableau
Programming Languages	Python (Tensorflow, Stable Baselines, OpenAI 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, CAD, 3D printing

PROJECTS

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

Electric Coffee Grinder Conversion March 2024 - Present

- Converted a hand-crank coffee grinder, designing a system consisting of a split-ring gearbox, brushless motor, PWM motor controller, and ESP32 microcontroller
- Most parts 3D printed in PETG & open sourced

Clarkson Formula SAE August 2022 - May 2024

- Composite axle: Researched, designed, fabricated, & tested composite axle prototypes
- Composite layups: Laid up epoxy/carbon weave components, focusing on aerodynamic surfaces

Other Projects

- ANSYS boundary layer visualizer in C++ & MATLAB (2022), Team America Rocketry Challenge (2018-2019), RoboSub (2019)