

Simon Eberhart

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EDUCATION

Olin College of Engineering

Electrical and Computer Engineering; Class of 2030

Yale University

Enrolled, non matriculated student; HUMS3188, Artificial Life, Reproduction, and the Limits of Humanity; A+

SCSU

Enrolled, non matriculated student; BIO101, Microbiology Lecture & Lab; A+

EXPERIENCE

Engineering Intern, Junior Engineering Technician June 2025 – August 2026

Hygrade Precision Technologies LLC., Plainville, CT

- Manufactured parts for SpaceX, Lockheed Martin, Boeing, and General Electric with micron level tolerances
- Conducted metrology engineering for thousands of precision parts using CMMs & height gauges
- Worked to resolve manufacturing issues across our fleet of CNCs and grinding machines

Robotics Intern June 2024 - August 2024

Dragonfly Engineering LLC., Santa Clara, CA

- Reverse engineered 6-axis robotic arms with integrated proprietary vision systems purchased from Google X
- Programmed industrial robots with KRL for use in our assembly line
- Converted a 3-axis mill into a CNC with a homemade electronics assembly and custom milled brackets
- Designed products for customers with DFM in mind and worked with suppliers to source components

Founder, Independent Engineer 2025 – Present

D.A. Design LLC., Woodbridge, CT

- Founded a robotics and manufacturing research organization to eventually commercialize independent projects
- 4 provisional patents filed

Electrical Engineer 2026 – Present

Olin College Baja SAE, Needham MA

- Designed a sensor suite to measure fuel levels by tracking resonant frequency deviations from the tank
- Designed a custom PCB and software to isolate frequencies using Fast Fourier Transforms

PROJECTS

Statistical Arbitrage Quantitative Analysis Model | Python, NumPy, SQLite, Derivatives Trading 2022 – 2024

- Developed a statistical arbitrage model using novel Euclidean distance algorithms
- Constructed a homemade 20 node compute cluster with custom network protocols
- Traded live for 3 months with 18.11% profit; 42% pre-fees

6 Axis, Single Motor Robot Arm | KiCad, Fusion360, Onshape, JavaScript

- Conducted 2 years of research on novel actuation technique for a 6 axis robotic arm
- Built custom solenoids, PCBs, enclosures, actuators, etc
- Designed a unique universal tool changer for affordable robotics
- Coded a custom software suite for robot programming and orchestrator

3d Print Recycler | Fusion360, 3d Printing, C++

- Designed a low cost machine to make usable filament from discarded 3d prints
- Used hall effect sensor readings to dynamically tune the extrusion line to maintain accurate filament dimensions
- Conducted tests to ensure the quality of produced plastics

TECHNICAL SKILLS

Languages: Python, C++, SQL, JavaScript, HTML/CSS

Software: Fusion360, Onshape, KiCad, Matlab

Finance: Derivatives Trading, Statistical Models, Options Pricing

