Lundeen Cahilly

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Education

Stanford University *Stanford, CA*

B.S. Computer Science; M.S. Aeronautics & Astronautics (Intended) **Sep. 2024 – Jun. 2028**

- GPA: 3.9/4.0
- Relevant Courses: Mechanics and Special Relativity, Quantum and Thermal Physics, Linear Algebra and Multivariable Calculus, Integral Calculus of Several Variables, Into the Metaverse: Designing the Future of Virtual Worlds

Phillips Academy *Andover, MA*

- GPA: 6.0/6.0 **Sep. 2020 – Jun. 2024**
- Relevant Courses: Modern Physics, Astronomy Research, AP Physics C Mechanics and E&M, The Art of Persuasion

Experience

Stanford Student Space Initiative *Stanford, CA*

Satellites Team Co-Lead; GNC Engineer **Apr. 2025 – Present**

- Selected to lead satellites team within first 6 months
- Lead team of 40+ engineers on 2U CubeSat development (Jan 2026 launch) with emphasis on autonomous GNC, real-time embedded control, and mission-critical flight systems
- Self-directed >500 hrs in lab over summer 2025, driving satellite flight readiness and GNC flight system development
- GNC Algorithms: Built custom quaternion/matrix math libraries, magnetic field & sun vector models, extended Kalman Filter for sensor fusion, and attitude controllers. Delivered detumbling and attitude determination for flight stack, with reliable attitude control in the near-term horizon
- Embedded Systems: Developed and debugged embedded hardware abstraction layer from bare metal (including redesigning hardware) and implemented magnetometer, GPS, sun sensor, IMU, power monitor, magnetorquer, reaction wheel, and main flight computer interface. All validated and tested with hardware-in-the-loop testing
- Launch Re-Manifest: Led crisis response negotiations with Exolaunch following an unprecedented bump from initial October launch date, securing next-best re-manifested launch date while meaningfully strengthening relationship

GNC Engineer **Sep. 2024 – Mar. 2025**

- Built SAMWISE digital twin via a comprehensive 6-DOF dual attitude & orbital propagator incorporating sensor fusion, control laws, quaternion-based kinematics, and perturbation torques for attitude control validation

Virtual Human Interaction Lab (VHIL) *Stanford, CA*

Research Assistant **Jan. 2025 – Apr. 2025**

- R&D of AI-based computer vision tracking systems for XR industry pioneer Prof. Jeremy Bailenson's research lab. Developed and evaluated systems to quantify behavioral data for multimodal XR studies requiring unobtrusive measurement

Dragon Group LLC *Greenwich, CT*

Analyst **Jun. 2017 – Aug. 2024**

- Tech-centric PE / GE / VC firm. Work with founders to accelerate global growth. Helped originate 8 portfolio positions to date, including xAI, Corsair Gaming, Elgato, Origin, SCUF, Epic Games, WNBA Portland Fire, and BTC
- xAI: Series A, Jan 2024. Member of core team leading Dragon's inaugural AI investment with truth maximization thesis
- Corsair Gaming: Led Esports whitepaper and assessment of company's high potential for industry leadership
- Epic Games: Identified Unreal Engine's "hidden value" as a Real-Time 3D engine during 2017 Fortnite growth phase
- WNBA Portland: Member of core team leading Dragon's second inaugural investment in women's professional sports

Volunteering

The Ligado Society *Greenwich, CT*

Cofounder, Board of Directors **May 2017 – Present**

- 501(c)(3) inclusive tech startup helping marginalized Portuguese-speaking kids esp. in Mozambique & Brazil
- Created & distributed high-value digital COVID-19 info reaching $\geq 50k$ Mozambicans on a regular basis

Other

Skills: Python, C++, C, KiCAD, Unreal Engine, Real-time 3D, Embedded Systems, PCB Design, Control Theory

Fun facts: Ran 50km ultra around Stanford's "Lake Lag". Been to 23 countries. Survived armed car chase. J-pop enjoyer.