Ronan Nopp

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EDUCATION

University of Washington — **Seattle, WA**
Electrical and Computer Engineering (BS); **GPA: 3.80** — Aug 2021 – Jun 2025

PROFESSIONAL EXPERIENCE

Skypad — **Tampa, FL**
Controls/Embedded Systems| EVTOL Startup — Sep 2023 – Dec 2024

- Full ownership over development of a novel drone product. Worked in Solidworks to design a custom chassis, built out the hardware suite, sourced production, and verified overall productization with leadership
- Integrated Skypad's novel data visualization software with the novel drone product and presented the system to DARPA
- Developed and tested a manned-unmanned EVTOL, collaborating across the software and structures teams to implement a 400V power harness and build custom Lithium-Polymer battery packs with integrated BMS
- Presented flight demonstrations of a manned-unmanned vehicle prototype to stakeholders at DARPA and the Air Force
- Integrated hardware for a centralized telemetry computer, working in Python and C to reverse engineer communication protocols and format data streams for embedded systems
- Tuned closed-loop controls firmware in C on a manned test vehicle and advised the structures team on changes to improve rotor configuration and reduce vibrations, eliminating the need for aggressive notch filters on EKF input and vastly improving measured control authority (100ms less input delay, rise time ~2x faster given fixed overshoot/settle)

FREYR — **Seattle, WA**
Founder | Autonomous Drone AgTech Startup — Dec 2022 – Apr 2023

- Founded FREYR to create an innovative, autonomous aircraft-based solution that applies fertilizer with unprecedented efficiency, significantly lowering both operational expenses for farmers and the environmental impact of agriculture
- Won $15,000 1st Place in Alaskan Airlines innovation challenge (21 teams), featured in GeekWire, and pitched a plan to consolidate the fragmented fertilizer industry, saving farmers $60/acre and reducing farmer operating costs by 13%
- Managed 8 analysts and conducted 50+ customer interviews in the NSF I-CORPs program to validate solution fit
- Led a cross-disciplinary team of 30+ engineers to build a 10' wingspan drone prototype, developing optimization software to cut projected fertilizer inputs by 50% on 10,000-acre corn farms without reducing yields

Fives Lund — **Renton, WA**
Robotics Intern | Industrial Automation — Jun 2022 – Sep 2022

- Overhauled and repaired the battery system on an omnidirectional mobility robot
- Automated a manual two-hour long camera calibration process for a metrology test cell with Python packages in ROS
- Machined a specialized aluminum end effector(CNC mill) for the robot and implemented a custom-built vibration sensor

LEADERSHIP & PROFESSIONAL DEVELOPMENT

Lockheed Martin Corporation — **Seattle, WA**
Power Systems | Lunar Electromotive Launch System Capstone — Jan 2025 – Current

- Building a Python model for a mass driver capable of moving 100,000 kg/year off the lunar surface into NRHO

Husky Flying Club, UW — **Seattle, WA**
Engineering lead | Student Organization — Nov 2022 – Aug 2023

- Lead 44 undergrads to design, build, and flight test a 10' wingspan aircraft prototype
- Modeled and verified dynamic stability of the experimental aerodynamic configuration with a Python interface for Athena Vortex Lattice

Husky Satellite Lab — **Seattle, WA**
Team Lead | Undergraduate Engineering Organization — Sep 2021 – Sep 2022

- Collaborated in Git with a team of 6 engineers to develop image un-distortion code for star-tracking software in C++

PROJECTS

Personal Project Portfolio ronannopp.com

- Projects in power electronics(Plasma Generator, Tesla Coil), controls (unique UAVs and closed loop tuning), and more

SKILLS

C, Python, Matlab, PX4, ROS, Linux, KiCAD, SolidWorks, Simulink, CNC machining, PCB design