

# Noah E Typrin

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## Education

### Northeastern University, Boston, MA

Expected May 2029

*Candidate for Bachelor of Science in Mechanical Engineering, Minor in Aerospace Engineering* | **GPA: 3.6**

Coursework: Thermodynamics, Statics, Electronics, Modern Physics, Cornerstone of Engineering

Honors & Certifications: Dean's List, SolidWorks Associate (CSWA), PADI Open Water Diver

Activities & Interests: CubeSat (Satellites), Northeastern Climbing Club, 3D Animation, Guitar, Scuba-diving

### Kehillah High School, Palo Alto, CA

Aug 2022 – May 2024

GPA: 4.23

Leadership: AP Physics C Teacher Assistant

Activities: Sail-bot Competition (Robotics), Varsity Tennis, Green Club

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## Work Experience

### Project Horizon (CubeSat)

*Spacecraft Structures Lead*

Jan 2025 – Present

- Spearheaded a cost-saving initiative by conducting structural analysis and designing a 6061-T6 aluminum satellite hull using ANSYS, leading to an in-house CNC milled design that saved 60% on the chassis.
- Managed the power budget for 8 distinct satellite modes (e.g., Detumble, Eclipsing, Downlink) to dictate active subsystem states and ensure a positive energy balance, requiring close collaboration with subsystems leads.
- Designed and finalized the internal bus layout for the 6U CubeSat, optimizing component placement to minimize wire harness length, reduce EMI, and meet critical mass/moment-of-inertia requirements.
- Reverse-engineered and modeled commercial components lacking .STEP files, mitigating delays and generating high-precision CAD for final assembly and interference checks.

### Kostas Research Institute, Burlington, MA

Apr 2025 – Sep 2025

*Battery Sustainability Researcher*

- Researched the performance effects of charge cycles on electrolytes inside two-state LFP and solid-state NMC Li-Ion batteries to understand why batteries degrade and how to improve them.
- Performed voltage sweeping tests and diagnostic measurements featuring over 1,000,000 data points, hands-on experience with temperature chambers, fume hoods and essential research practices.
- Collaborated with peers to analyze data using MATLAB and create comprehensive reports on our findings on various topics relating to chemical potential and phase separation.

### Venture MMO, Menlo Park, CA

Sep 2020 – Aug 2025

*Co-Founder and Creative Director*

- Founding member and Creative Director for Venture Studios: First game released to beta with strong positive feedback with over 5,000 beta users, and a 97% positive rating.
  - Co-Lead a 7-member development team, utilizing project management, coordinating tasks and oversaw system implementation.
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## Projects

### Self-Orienting Solar Panel (Personal Project)

Sep 2025 – Present

- Fabricating a self-orienting solar array using a dual-servo gimbal, developing technical design and prototyping skills using SolidWorks, FDM Software, Altium Designer, STM32CubeIDE, and MATLAB.
  - Simulated a 71% power gain in MATLAB over a fixed mounted solar model incorporating atmospheric and orbital mechanics to calculate system performance.
  - Utilizing the Engineering Design Process, documented and organized progress to write and present a technical manuscript at the FYEE 2026 conference.
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## Skills

**Software:** Arduino IDE, ANSYS Software, Altium Designer, SolidWorks, MATLAB, AutoCAD, Eagle CAD, FDM Software, JavaScript, Excel, PowerPoint, Python

**Technical:** Prototyping, 3D Printing, Research, Project Management, Electronics, Circuit/PCB Design, System Implementation, Simulation, Oscilloscopes, CNC milling