Noah Milivojevic

Palo Alto, CA
noah@milivojevic.org

Aerospace Engineer • Spaceflight Hardware • Robotics

Hands-on engineer with experience building flight hardware, embedded and machine learning systems, and leading cross-functional teams.

Paid Experience

Research Intern - Fluid Mechanics / University of Alabama NSF REU   **Summer 2025 / Tuscaloosa, AL**
- Classified combustion regimes in 20,000 FPS imagery using computer vision and ML adaptive tuning
- Automated testing and data collection using networked LabVIEW data acquisition system
- Streamlined sensor calibration by designed custom PCBs; introduced visual distortion correction
- Assembled and validated 150 bar, 1000 °C Inconel diesel combustion research rig
- Reduced data processing time by >50% through automated pipelines and improved tracking

Robotic Actuation Intern / Kall Morris Inc / Orbital Debris Removal Startup   **Summer 2024 / Marquette, MI**
- Contributed to space-flown robotic payload, demonstrating first-ever universal orbital debris capture
- Assembled underactuated mechanism: PCB soldering, wiring harnesses, environmental verification
- Investigated alternative articulation schemes: CAD, electrical, and controller design of servo-actuated capture mechanism utilizing touch sensor feedback control
- Integrated mechanical and embedded control modes to improve system response and repeatability
- Ensured compliance with NASA human-rating standards, participated in NASA certification meetings
- Identified integration gaps that enabled team to exceed system-level test goals

Skills

CAD & Prototyping: SolidWorks, OnShape, 3D printing, Lathe/Mill, MIG welding, PCB Fabrication, Soldering
Analysis & Simulation: FEA (Ansys, Patran), CFD (compressible and rarefied), Composites
Controls & Software: Python, MATLAB/Simulink, C++, Computer Vision, Embedded Systems, Linux, Git

Education

University of Alabama in Huntsville   BS Aerospace Engineering / 3.92 GPA / Honors College / Tau Beta Pi
Grad work: Orbit Optimization, Electric Propulsion, Composite Materials, FEA
Undergrad: Systems & Control, Compressible Aerodynamics (CFD), Honors Thesis

Clubs & Leadership

Co-Founder & Lead Engineer - Electric Propulsion Club / UAH   **2022 - 2025 / Huntsville, AL**
- Patent co-author on DC-discharge plasma source for gridded ion thruster; presented research internationally
- Designed and integrated high-voltage control circuitry, safety interlocks, and vacuum test infrastructure
- Developed custom 2-D MATLAB plasma flow solver based on doctoral research

Program Manager - Senior Design: Uranus Mission Concept / UAH   **2025 / Huntsville, AL**
- Coordinated subsystem modeling across three vehicles (30+ students), managed 300+ requirements
- Led cost-benefit analysis in engineering trades, emphasizing alignment with risk and project requirements
- Reverse-engineered orbital models from research papers, optimized trajectories to fit new requirements
- Secured external tool licenses, industry mentorship to deliver above expectation and ahead of schedule

Certifications and Publications

- Certified Solidworks Associate
- NAR/TRA High-power rocketry L1 certification

Milivojevic, N., "Automated Cool-Flame Recognition in Rainbow Schlieren Images of Diesel Combustion" (2025). Honors Capstone Projects and Theses. 987. https://louis.uah.edu/honors-capstones/987

Blue, C., Milivojevic, N., et al., "STARGATE: An Undergraduate Experimental Electric Propulsion Student Research Project" (2024). Journal of Electric Propulsion. https://doi.org/10.21203/rs.3.rs-5743815/v1