BENJAMIN DURKEE

turkeedurk.ee | turkeedurkee@gmail.com

EDUCATION

Purdue University, Bachelor of Science   *Aug. 2017 - Dec. 2021*
BS, Aeronautical and Astronautical Engineering with a minor in Organizational Leadership.

TECHNICAL SKILLS

I&T: Torquing, staking, safety cable/lockwire, cable mating, splicing, plumbing/harness routing, test set design.
Modeling & Drafting in CATIA, SolidWorks, Creo, 3DExperience, >1000 hours in NX | **FEA** in NASTRAN.
Data Mgmt. in Excel, Jira, Git, Grafana, Ignition, Teamcenter, Windchill, Mission PLM, & Solidworks PDM.
Programming in MATLAB, Ruby, HTML, C, & JavaScript | **Scripting** in Python, Perl & Visual Basic (VBA).

EMPLOYMENT HISTORY

Assembly, Integration, & Test Engineer II - Firefly Aerospace   *Sep. 2024 - Mar. 2025*
- Responsible for the integration and test of the Blue Ghost 1 lander, from environmental testing to launch.
- Integrated thrusters, avionics, antennae, MLI, and more; repaired solar arrays, radiators, and plumbing lines.
- Owned all integration procedures for the Blue Ghost 2 lander, based on a vehicle design in progress.
- Wrote and defined critical integration SOPs for the Firefly Spacecraft department.
- Established, taught, and administered systems for tool control, small part inventory, and RBF checkouts.
- Owned the development of SCADA platform and facility hardware to monitor cleanroom environment stats.

Design, Integration, & Test Engineer - NG Space Systems (Pathways)   *Jun. 2023 - Aug. 2024*
- Owned subsystems of the Minotaur I/IV vehicles, including payload adapters and sep. mechanisms.
- Ran various mech. integration procedures incl. Haz ops, payload integration, and stack breakover at VSFB.
- Designed, manufactured, installed, and operated new GSE for vehicle roll transfer and pad emplacement.
- Performed structural (hand calcs and FEA), tolerance, corrosion, radiation, and contamination analyses.

Associate Electromechanical Engineer - NG Mission Systems (Pathways)   *May 2022 - Jun. 2023*
- Conducted mech. design for radar power electronics in the Airborne Multifunction Sensors Division.
- Used NX and Xpedition to design and test Printed Circuit Boards (PCBs), test kits, and heat sinks.
- Created a parametric 3D-printable wrench in NX for techs' use on valves, eliminating valve breakage.
- Rapidly found, diagnosed, and fixed a coolant leak shortly before product delivery to the customer.

GNC Engineering Intern - Raytheon Intelligence & Space   *Jun. 2021 - Aug. 2021*
- Regression tested orbit prediction software for NOAA's second Joint Polar Satellite System (JPSS-2).
- Wrote custom orbit traffic scripts for use in Orbit Operations and Mission Management.
- Built a satellite backorbit calculator in Excel using Visual Basic for Applications (VBA).

Technical Intern - Applied Research Associates   *May 2019 - Aug. 2019*
- Designed & prototyped mechanical components for the GBU-72/B warhead program.
- Used hand calcs and SolidWorks Analysis to perform structural analysis on joints and bolt interfaces.
- Owned, created, and administered SolidWorks PDM network to increase productivity and control revisions.

RELEVANT EXPERIENCE

Mechanical Lead, Purdue Team - NASA Micro-G NExT Project   *Aug. 2020 - Jun. 2021*
- Led design and manufacturing of a coring drill bit and stabilizing jig for use on the lunar surface (Artemis).
- Worked with astronauts and NASA liaisons for design reviews and testing in the Neutral Buoyancy Lab.

Member & Design Lead, Commercial Rocket Team - Purdue Orbital   *Aug. 2017 - Aug. 2021*
- Designed, built, tested, and launched high-end L-Class solid-fuel rocket (2,200 N total thrust).

Researcher/Journalist, Crews 218 & 236 - Mars Desert Research Station (MDRS)   *Dec. 2019 & Dec. 2021*
- Collaborated w/ Purdue researchers for two weeks per mission at the MDRS while leading RF research.