Krish Shah

krish22@vt.edu— U.S. Citizen — Ashburn, VA — linkedin.com/in/krish5

EDUCATION

Virginia Tech (Honors College) — Aug. 2024 – May 2027
Bachelor of Science in Aerospace Engineering, Minor in Math — *GPA: 4.00*
Pennsylvania State University — Aug. 2023 – May 2027
Bachelor of Science in Aerospace Engineering — *GPA: 3.94*

SKILLS

CAD/CFD: SolidWorks, AUTOCAD, Star CCM+, ANSYS
Programming: MATLAB, JAVA, Python, LaTeX
Additional: Energetic Materials, Laser Diagnostics, Optics, High-Speed Imaging, 3D Printing, Welding, Microsoft Office (Word, PowerPoint, Excel), ArcGIS
Personal: Project Management, Technical Documentation, Leadership, Team Collaboration, Time Management
Relevant Coursework: Thin-Walled Structures, Operational Methods, Electronics, Astromechanics, Introduction to CFD, Computational Methods, Public Speaking for Engineers

PROFESSIONAL EXPERIENCE

Undergraduate Researcher – SURF AAMP-UP Program — May 2025 – Present
Purdue University – Zucrow Labs — *West Lafayette, IN*
- Conducting hands-on detonation research at Zucrow Labs by cutting voids into energetic materials and analyzing their interaction with metal sheets to study shock propagation, energy release, and structural effects under high-strain conditions.
- Supporting advanced diagnostics using high-speed imaging, laser-based measurement systems, and optical tools to capture detonation velocities and transient combustion events for propulsion-related applications.

CAD Developer & Warehouse Specialist Intern — June 2024 – Present
MAC Aerospace — *Ashburn, VA*
- Developing precise 3D CAD models using SolidWorks with geometric dimensioning and tolerancing (GD&T) for military and commercial aircraft components.
- Managed an inventory of over 5,000 aerospace-grade components in their database while implementing an innovative strategy leading to a 35 % improvement in order processing.

Aerospace Engineering Intern — Apr. 2023 – Jun. 2023
Iridium Satellite Communications — *Leesburg, VA*
- Participated in satellite operations for Iridium NEXT launch while in the mission control room, gaining exposure to orbital dynamics, communication between satellites, and telemetry analysis.
- Collaborated with the engineering team to create handover report templates in PowerPoint for the 5 different subsystems which are still in use by the company.

EXTRACURRICULAR INVOLVEMENT

Undergraduate Researcher - Hume Center for National Security and Technology — Sep. 2024 – Present
- Conducting Computational Fluid Dynamics (CFD) simulations on a morphing unmanned underwater-aerial vehicle (UAV/AUV) using Star-CCM+.
- Performing meshing analysis, flow visualization, and aerodynamic performance assessment for transition between air and water environments.

Aerospace and Propulsion Team Lead – GoAERO at Virginia Tech — Oct. 2024 – Present
- Leading a team of 15 students to develop and prototype an autonomous aerial vehicle to aid during rescue operations and lift a minimum payload of 125 pounds
- Collaborating with team members to produce various components of the drone, including CFD/CAD modeling, propulsion systems, and thrust calculations while overseeing project progress

Team Lead - Student Space Program Lab (SSPL) at Penn State — Aug. 2023 – Dec. 2024
- Led a team of four in designing, building, and launching a small rocket payload consisting of Adafruit sensors to measure the methane composition, temperature, humidity, and gas composition at a small farm near Penn State
- Used KiCad to create the intricate planning for wiring and SolidWorks to design the sensor housing