aaronfeng12@gmail.com **858-449-2662**
aaronfeng12.github.io **linkedin.com/in/aaron-feng/**

Aaron Feng

Education

MSE Mechanical Engineering, University of Michigan Ann Arbor (GPA: 4.00) *Jan 2024 - Dec 2024*
- Digital Control Systems, Finite Element Methods in MEAM, Adv Batteries, Experimental Design Microelectromechanical Systems, Design Optimization, Robotic Kinematics & Dynamics

BSE Mechanical Engineering, University of Michigan Ann Arbor (GPA: 3.97) *Aug 2021 - Dec 2023*

BS Aerospace Engineering (transfer), University of Illinois Urbana-Champaign (GPA: 3.80) *Jun 2019 - May 2021*
- Discrete Structures, Data Structures, Flight Mechanics, Mechanics of Aerospace Structures, Incompressible Flow, Computer Architecture, Numerical Methods, Algorithms

Experience

Relativity Space / Thermal Engineering Intern - Long Beach, CA *May 2024 - July 2024*
- Developed convection tool and GUI for various input parameters and geometry *May 2023 - Aug 2023*
- Implemented post processing tool for heat flow between subgroups, transient calcs for frost buildup
- Created and analyzed thermal models of Terran R throttle valve actuator, cables, thermal protection system

University of Michigan / Graduate Student Instructor - Ann Arbor, MI *Jan 2024 - May 2024*
- Instructed ME395 (Lab I) sections; taught and guided students to run/troubleshoot vibration, vapor compression cycle, aluminum tensile/fracture, DC motor, wind tunnel equipment/experiments

Rivian / Aerothermal Systems Engineering Intern - Irvine, CA *May 2022 - Aug 2022*
- Evaluated heat management with composite materials and potential range improvements for EDV and R1S
- Automated StarCCM+ simulation workflow, reducing number of steps by 66%
- Developed insulation pack for human comfort in EDV cargo compartment by optimizing geometry and R-value, resulting in use in 15,000 vehicles; determined evaporator cooling power required for varying ambient conditions
- Conducted material stack configuration, fan characterization testing; quantified benefits of different EDV roof colors

Tesla / Manufacturing Engineering Intern - Austin, TX *Jan 2022 - May 2022*
- Streamlined Model Y fascia assembly line and reduced cycle time using process flow layouts and time studies
- Designed and assembled 2QPC buffer storage method to accommodate urgent process needs
- Established standard work procedures for fascia assembly process, trained operators, supported production team
- Presented and coordinated design change review for assembly line, reducing finished goods transfer time by 70%

H.A. Automotive Systems / Design Engineering Intern - Troy, MI *Jun 2021 - Jan 2022*
- Conducted Design Failure Mode and Effect Analysis (DFMEA) on headlamps, taillamps
- Employed CAD (CATIA) to model products, improved structural stiffness of proposed products
- Designed, assembled, and validated a green filter headlamp prototype which was adopted by GM as a benchmark/proof of concept, resulting in $100,000 additional market value revenue

Activities

Michigan Aeronautical Science Association / Member *Aug 2021 - Dec 2022*
- Analyzed liquid propellant propulsion chamber pressure using FEA, injector design using CFD

Illinois Space Society / Subteam Lead *Aug 2019 - May 2021*
- Competed in NASA's Revolutionary Aerospace Systems Concepts - Academic Linkage (RASC-AL)
- Led group for radiation/MMOD protection, design, FEA for structure of reusable lunar habitat (finalist team)
- Researched nuclear thermal propulsion and zero boil-off, defined specifications for Mars mission (finalist team)

Organizations

- American Society of Mechanical Engineers (ASME) / Member *Aug 2021 - Present*
- American Institute of Aeronautics and Astronautics (AIAA) / Member *Aug 2019 - May 2021*

Skills

- C++, Java, Python, JavaScript, MATLAB, TensorFlow; NX, CATIA, SolidWorks, Fusion 360, AutoCad, ANSA
- Thermal Desktop, Ansys, TaiTherm, StarCCM+, Adams, COMSOL, STK (Level 1 Certified), EAGLE
- Mill, Lathe, Laser cut, Water jet, 3D printing

Honors & Awards

- University of Michigan: Dean’s List, University Honors, James B. Angell Scholar, Budd Scholarship
- University of Illinois Grainger College of Engineering: James Scholar, Dean’s List