

Daniel Y. Zhang

danielyzhang.com • US Citizen • Lexington Park, MD 20653 • +1 (571)-327-9333 • dyszhang@gatech.edu

Work Experience

Lockheed Martin

FC/HQ Flight Test Engineer

Patuxent River, MD

November 2019 – Present

- Support CH-53K flight test program through control systems design, analysis techniques, and testing.
- Plans, conducts, manages, and reports on helicopter flight tests with respect to flight controls and handling qualities.
- Brief flight and ground crews and provide real-time telemetry support of critical parameters during flight testing.
- Analyze and process large volumes of flight test data and report test results, conclusions, and recommendations.
- Work and coordinate with other flight test disciplines, such as pilots, mechanics, and technicians.
- Currently holds Secret clearance.

JRC Integrated Systems, Inc.

SWS Ashore Intern

Washington, DC

June 2018 – May 2019

- Supported Strategic Weapons System Ashore Program in Cape Canaveral, Florida, and Columbia-Class Submarine.
- Collaborated, updated, and maintained systems engineering documentation including test procedures, outlines, index, and schedules.
- Participated in the remote JRC Co-op Program.

Georgia Tech Campus Recreation Center

Shift Supervisor

Atlanta, GA

February 2017 – May 2019

- Audited and supervised fellow lifeguards and enforced all rules of McAuley Aquatic Center.
- Responded to all emergencies and administer first aid as needed to guests in distress.
- Presented professional appearance and attitude and maintained a high standard of customer service.
- Determined ways to improve the maintenance of McAuley Aquatic Center and skills of fellow lifeguards.

Education

Georgia Institute of Technology

B.S. in Aerospace Engineering, Certificate in Entrepreneurship

Atlanta, GA

August 2015 – May 2019

- Studied abroad at the Hong Kong University for Science & Technology and the University of Limerick.

Research

Undergraduate Research

May 2017 – July 2017

- Analyzed NACA 2412 airfoil at various angles of attack by simulating fluid flow in Star CCM+.
- Designed airfoil with lower drag coefficient than the NACA 23012 airfoil by reducing turbulence caused by adverse pressure gradients over the airfoil in XFOil.

Projects

Personal Portfolio Website

May 2020 – Present

- Created a portfolio website at danielyzhang.com from scratch using ReactJS, CSS, and JavaScript and deployed on Heroku and Firebase.
- Applied principles of web design, such as planning, design, development, launch, and maintenance.

Saturn Ultraviolet Ring Optical Navigator (S.A.U.R.O.N.)

January 2019 – April 2019

- Developed a mission concept to send a CubeSat to Saturn to explore the solar phenomena effect on ring dynamics.
- Primarily worked on cost analysis and scheduling while supporting other aspects.

Lunar Orbit Refueling System

September 2018 – November 2018

- Constructed aerospace system project plan concept for lunar orbit refueling system to obtain resources from moon and reduce long term space operations resource intensity.
- Applied systems engineering principles to create and determine CONOPS, WBS, and project lifecycle.

SolidWorks Team Design Project

February 2016 – May 2016

- Collaborated with team members to design and model a grappling gun.
- Used creative ideation, sketching, and SolidWorks to model and assemble parts into a final engineering product.

Skills

Aerospace Engineering

- Aircraft & Rotorcraft Performance, Airfoil Lift & Drag, Attitude Control, Avionics Integration, Beam Theory, Deformable Bodies, Elasticity Equations, Electric Aircraft Propulsion, Finite Element Theory & Analysis, Flight Controls & Handling Qualities, Flight Testing, Fluid Dynamics, Free Vibration, Guidance Navigation & Control, Integrated Navigational Systems, Interplanetary Transfers, Jet & Rocket Engine Cycle Analysis, Laminar & Turbulent Boundary Layers, Laplace Transforms, Orbital Mechanics, Rigid Body Motion, Space Flight Operations, Stress Analysis, System Dynamics, Thermodynamics Cycle Analysis, Thin Airfoil Theory

Business

- Business Model Design, Financial Reporting & Interpretation, Lean Entrepreneurship, Management, Market Research, SWOT Analysis, Target Market Selection & Positioning

Laboratory

- Circuit Design, Dynamic Helicopter Model, Extensometer, Instrumentation & Sensors, Jet Turbine Engine, Load Cell, Particle Image Velocimetry, Power Tools, Rijke Tube, Water Tunnel, Wind Tunnel

Programing & Software

- AVL, CAD, CFD, Firebase, GitHub, Heroku, HTML, IADS, Java, MATLAB, Microsoft Office, PHP, ReactJS, SIMULINK, SolidWorks (CSWA Part 2 Certified), Star CMM+, vPython, Web Design & Development, XFLR5, XFoil

Technical

- Control Systems Performance Analysis, Daily Reports, Data Analysis & Interpretation, Flight Cards, Modeling & Simulation, Requirements Analysis, Research, Script Writing, Signals Processing, Systems Engineering, Technical Report, Test Plan Writing & Amendments, Trade Studies

Communication

- Auditing, Business Plan, Coaching, Confluence, Customer Service, Delegation, Formal Report, Oral Presentation, Project Proposal, Supervising

Language

- English – Native, Chinese – Intermediate, French – Elementary