Daniel Y. Zhang

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

Work Experience

Lockheed Martin   **Patuxent River, MD**
Aeronautical Engineer Asc   *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 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 <u>Secret clearance</u>.

JRC Integrated Systems, Inc.   **Washington, DC**
SWS Ashore Intern   *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   **Atlanta, GA**
Shift Supervisor   *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   **Atlanta, GA**
B.S. in Aerospace Engineering, Certificate in Entrepreneurship   *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 <u>danielyzhang.com</u> from scratch using ReactJS, CSS, and Javascript and deployed on Heroku and Firebase.

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.

Engine Design Team Project   **June 2017**
- Performed turbine engine analysis to optimize an engine cycle.
- Determined equations for each engine part and created a program to simulate various engine cycles.

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, Astrodynamics, Attitude Control, Avionics Integration, Beam Theory, Circuit Principles, Control Systems Performance Analysis, Deformable Bodies, Elasticity Equations, Electric Aircraft Propulsion, Energy Maneuverability Theory, Finite Element Theory, 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, Systems Engineering, Thermodynamics Cycle Analysis, Thin Airfoil Theory, Trade Studies

Laboratory
- Dynamic Helicopter Model, Extensometer, Jet Turbine Engine, Load Cell, Particle Image Velocimetry, Power Tools, Rijke Tube, Water Tunnel, Wind Tunnel

Programing & Software
- AVL, CFD, Firebase, Java, Heroku, HTML, MATLAB, Microsoft Office, PHP, ReactJS, SIMULINK, SolidWorks, Star CMM+, vPython, XFLR5, XFoil

Communication
- Auditing, Business Plan, Coaching, Customer Service, Daily Reports, Data Analysis & Interpretation, Delegation, Formal Report, Oral Presentation, Ordinance Document Review, Project Proposal, Supervising, Technical Report

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