

Daniel Y. Zhang

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Work Experience

Axis Group

Atlanta, GA

Associate Solution Consultant

November 2021 – Present

- Utilize business intelligence tools, such as ThoughtSpot, to provide data modeling and analytics visualizations.
- Deliver solutions to clients through test and deployment, support and training, and identification of new opportunities.
- Collaborate with team members, including stakeholders, executives, designers, leads, designers, and data architects.
- Interact with clients to gather requirements and understand problems and deliver client presentations and critiques.
- Improve peers by sharing knowledge through training and webinars.

Lockheed Martin

Patuxent River, MD

FC/HQ Flight Test Engineer

November 2019 – August 2021

- Supported CH-53K flight test program through control systems design, analysis techniques, and testing.
- Planned, conducted, managed helicopter flight tests for flight controls and handling qualities.
- Briefed flight and ground crews and provided real-time telemetry support of critical parameters during flight testing.
- Analyzed and processed large volumes of flight test data and reported test results, conclusions, and recommendations.
- Worked and coordinated with other flight test disciplines, such as pilots, mechanics, and technicians.

JRC Integrated Systems, Inc.

Washington, DC

SWS Ashore Intern

June 2018 – May 2019

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

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 a 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 it 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

Programming & Software

- AVL, CAD, CFD, Firebase, GitHub, Heroku, HTML, IADS, Java, MATLAB, Microsoft Office, PHP, ReactJS, SIMULINK, SolidWorks (CSWA 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