JACKSON BUSCH

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EXPERIENCE

C2 Education, Bellevue, WA

Tutor/Teacher September 2025 – Present

- Tutored students in high-level math (through IB and AP Calculus) and Physics, breaking down complex problems into well-defined steps to improve comprehension and test performance.
- Designed personalized lesson plans, guiding students through multi-step problem solving techniques that strengthened students' quantitative reasoning and troubleshooting skills – directly applicable to technical engineering tasks.

Dark Matter in CCDs – University of Washington, Seattle, WA

Graduate Master's Student/ Development Assistant June 2023 – June 2024

- Built image analysis/masking script for use in search for Dark Matter using Skipper Charge-Coupled Devices (CCDs). Took digital images, investigated & corroborated data, and implemented tests for performance.
- Analyzed data using ROOT framework and C++ in a Linux-like environment. Automated examination of multiple directories, each with over 200 FITS image files, extrapolated useful data, and generated plots presented to colleagues.
- Employed data manipulation and analysis techniques. Cleaned images and fit results to theoretical calculations. Researched CCD physics and delivered paper on findings.

NASA, NASA HQ, Washington D.C. (Virtual/Remote)

Office of the Chief Engineer (OCE) Intern September 2022 – December 2022

- Task Lead for inspection into the NASA Gateway mission's Systems Security Engineering (SSE) practices and considerations. Conducted several interviews to gather a holistic understanding of the Gateway SSE successes and shortcomings. Produced comprehensive report to be used as a future reference in SSE.
- Advised SSE team with creation of monthly webinars delivered regularly to over 100 industry personnel. Supported presentation structure and topic clarity.

Unmanned Aerial Systems @ UCLA (School Club), Los Angeles, CA

Airframe Team Member December 2018 – June 2020

- Designed, modelled, and manufactured additions to a 5'-span quadrotor drone used in AUVSI SUAS Competition. Developed landing gear on $20 budgetary constraint.
- Team-designed 8'-wingspan, fixed-wing drone from inception to near-completion, with primary work on deployment module and ground vehicle. Reduced volumetric size of ground vehicle by over 20%.

Damar Aerosystems, Monroe, WA

Drafter Intern June 2018 - September 2018

- Renovated documentation system for 30+ tooling procedures using lathes, mills, band saws, belt sanders, etc. and took images used in documentation.

EDUCATION

University of Washington, Seattle, WA June 2024

Master of Science: Physics

Relevant courses: Electromagnetic Theory | Radiation | Laser Physics | Electrodynamics

University of California, Los Angeles (UCLA), Los Angeles, CA June 2021

Bachelor of Science: Aerospace Engineering

Relevant courses: Aerospace Structures | Aerodynamics | Object-Oriented Programming | Design-Build-Fly Capstone

SKILLS

Technical Skills: SolidWorks | MATLAB | C++ | ANSYS | CERN ROOT | Python | Linux Environment | PIC Codes (ZPIC) | Version Control (Git)

Soft Skills: Problem-Solving | Method-Based Thinking | Communication | Adaptability | Technical Writing | Teamwork | Professionalism