

Dylan Lake

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EXPERIENCE

Aztec Aerospace Design

(AIAA Design Build Fly – San Diego State University)

San Diego, CA

Structures (Team Lead)

June 2022 - Present

- Gained experience analyzing orthotropic aerospace grade composites, and other material structures using Siemens software (FEMAP and NX Nastran).
- Performed material testing using test coupons, subcomponents, and upper-level assembly components of aircraft wing structures and compared with FEMAP results.
- Lead team meetings while giving feedback and teaching fundamentals to other aerospace engineering students ensuring the timeline of design, manufacturing, and testing of aircraft is met.

Aerodynamics/ Structures/ Manufacturing (Team member)

August 2021 – May 2022

- Provided support by creating parts and sub-assemblies using CAD software such as Solid works and NX.
- Gained experience using Simcenter STAR-CCM to verify velocity and pressure profiles while modeling items like drag coefficients of airfoils and other geometric shapes with proper representation of Reynolds numbers.
- Performed proper manufacturing techniques of composite parts using various weaves and honeycomb material through processes such as wet layups, prepreg layups, and vacuum bagging as laid out in engineering drawings.

General Atomics Aeronautical Systems Inc.

San Diego, CA

Engineering Field Support Intern

June 2021 - August 2022

- Provided 24/7 technical support to customers through documenting events and detailed reporting for production and fielded aircraft.
- Gained experience in conducting thorough investigations, providing in-depth testing/analysis, and troubleshooting across multiple aircraft platforms.
- Proficient in problem-solving and coordinating with other engineering groups to provide proper dispositions for affected parts and higher-level assemblies.
- Suggested corrective action recommendations for customer-fielded aircraft such as time between overhaul of parts, ensuring flight readiness.

General Atomics Aeronautical Systems Inc.

San Diego, CA

Manufacturing Liaison Engineering Intern

June 2020 - August 2020

- Implemented engineering changes of composite airframe structure parts to improve manufacturability and ensure the most efficient as well as cost-effective production processes.
- Gained experience in presenting engineering changes through proper channels such as configuration control board (CCB).
- Performed CAD modeling/drawing changes using PTC Creo.
- Exposed to composite manufacturing, assembly, and engineering specification documents to better understand design intent and identify improvement opportunities.
- Supported Material Review Board (MRB) by investigating non-conforming parts to determine an appropriate disposition. Efforts also included substantiating dispositions for fit, form, and function. Became familiar with SAP system.

United States Army

Ft. Lewis, WA

Automotive Technician (Supervisor)

October 2012 – May 2016

- Lead soldiers through tasks such as maintenance schedules, parts changes, and performing services on \$1,000,000 worth of equipment.

- Diagnosed and fixed malfunctions by performing corrective maintenance on power trains, diesel engines, and chassis components of wheeled vehicles; mechanisms such as engines, control linkages, brakes, suspension, and steering.
- Conducted 2 month-long operational test of the MMPV Type 1/Voss (Buffalo) for evaluation and improvement of equipment before implementing into everyday military use.

VOLUNTEERING

Troops to Engineers Program (T2E)

SDSU - San Diego, CA

- Actively giving back to my community of fellow veteran students in engineering.
- Helping coordinate tours with companies such as General Atomics while providing a channel for engineering companies to work with SDSU's hardworking military veterans.
- Support of workshops, resume building, and networking tips.

EDUCATION

San Diego State University

San Diego, CA

- BS in Aerospace Engineering (3.78 GPA)
- Dean's list (2020, 2021, and 2022)

Aug 2020 – May 2023

San Diego Mesa College

San Diego, CA

- Associates of Science – Physics (3.8 GPA)
- Dean's list (2018, and 2019)

July 2017 - May 2020

SKILLS

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| <ul style="list-style-type: none"> • FEMAP • Simcenter Star-CCM • MATLAB • Excel | <ul style="list-style-type: none"> • SolidWorks • Creo Parametric • NX Nastran • FEMAP |
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