

Dylan Astrup

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EDUCATION

Embry-Riddle Aeronautical University (ERAU)
Bachelor of Science, Mechanical Engineering

Prescott, AZ
May 2023

WORK

Naval Surface Warfare Center, Port Hueneme Division

Port Hueneme, CA

EXPERIENCE

Mechanical Engineer, Combat Systems Test and Evaluation Department

June 2024 – Present

- Responsible for maintenance and operation of the Self Defense Test Ship (SDTS) Test Ship Remote Control Network (TSRCN), maintaining 100% uptime during test operations
- Spearheaded design and installation of replacement shore-based antenna positioners and controllers, saving \$400,000+ from quoted contracts
- Complete oversight on maintenance and troubleshooting of ship and shore-based antenna positioners
- Work with Remote Control Center (RCC) Systems Engineering team to troubleshoot any network issues that arise within the TSRCN
- Design and manufacture solutions to organize RCC workstations, including wall mounted PC mounts and headset holders
- Maintain security of transmitted information via COMSEC, following regulations and continual training
- Work with ISEAs to reverse engineer systems in order to design and manufacture custom Remote Control Interface Units (RCIU) to remotely control all ship board systems

Maintenance Engineer, Combat Systems Test and Evaluation Department

August 2023 – August 2025

- Developed maintenance analysis and procedures for new acquisition and sustainment systems (ICS, GWS, Unmanned, CG Athena, TSCE)
- Led cross-functional working group of 10+ engineers, logisticians, and operations analysts in the development of Maintenance Philosophy and FMECA documentation for ICS
- Teaching FMECA and other RCM concepts to new hires and interns
- Utilized and managed Scrum Team Methodologies to efficiently manage the project and deliverables
- Representing and recruiting for NAVSEA at college fairs

Tesla

Irvine, CA

Seasonal Tesla Advisor, Sales and Delivery Team

June 2021– January 2022

- Part of a record-setting team, delivering the most cars in a single day out of Costa Mesa (250+)
- Responsible for successful delivery and transportation operations
- Professional and customer-oriented while educating customers about their car 1-1

Village Green Foods – Food Manufacturing

Costa Mesa, CA

Quality Assurance and R&D Intern

July 2018 – August 2021

- Conducted quality tests on 25+ products and batches daily and managed batches that fail testing
- Assisted with Research and Development of 60+ new recipes
- Managed multiple online database systems for inventory, product purchases, and recipes

PROJECT

EXPERIENCE

Shore-Based Antenna Positioner: Lead

Reverse engineered a 25+ year old contractor installed antenna positioner system to replace the aged motor and controller. The limited physical access to the motor housing required the design to closely mimic the legacy system. A modern replacement stepper motor was acquired and designed a custom controller box with an absolute encoder as redundant position information. In-house developed software was created to control the system in our specific ship tracking environment.

ERH2 (Embry-Riddle Hydrogen) Capstone Project: Team Lead of 6 person team

Led a team of 6 senior engineering students to design, manufacture, and test a hydrogen production and storage system. The design included an alkaline electrolysis unit, a material storage system including lithium-doped graphitic carbon nitride, and an array of various types of thermal sensors. Project will be used as a demonstrator in the Mechanical Engineering department.

Hydrogen Powered Unmanned Aerial Vehicle Research: Co-lead

Founded an undergraduate design team working to build an autonomous, long-range, endurance UAV powered by hydrogen fuel cells and photovoltaics. The UAV was designed specifically to detect, alert authorities of, and survey wildfires in hotspot areas. Initial aircraft design and modeling, as well as general CONOPs, were completed but manufacturing was put on hold due to COVID-19.

Guide Dogs of America (GDA) – Puppy Raiser:

Raised a specially bred Labrador Retriever puppy from 8 weeks old to ~18 months old. Responsibilities included teaching basic commands, house manners, socialization in public places, attending obedience classes, and monthly GDA meetings. In 2017, my puppy was selected to be a breeder for GDA.

SKILLS

Engineering Software:

MATLAB, Solidworks (Proficient), Onshape (Beginner)

Office Software:

Microsoft Excel (Advanced) and the Microsoft Suite, Google Suite, Jira

Certifications:

Certified Scrum Master (CSM), COMSEC qualified, Solidworks CSWA & CSWP, CPR, AED and First Aid Certified

LEADERSHIP

Student Government Association Vice-President 2022-2023

Led and mentored a council of 10 members, overseeing strategic initiatives, as well as council management including overseeing conduct issues

Student Government Association Treasurer 2021-2022

Optimized the allocation of over \$1M in student fees, ensuring that funds were directed towards programs that benefited the student body, with significant student body involvement

AWARDS

Maintenance Planner of the Year FY25

On-the-Spot Awards (02/14/2024, 06/02/2024, 06/16/2024, 03/12/2025, 05/18/2025, 06/11/2025, 08/14/2025, 09/04/2025)

DoD S.M.A.R.T. Scholarship Fall 2021 – Spring 2023

HOBBIES/INTERESTS

3D Printing

Outrigger Canoe

Photography

Flying

Hiking

Service Dog Training

Cooking and Baking

Cars