Josh Embury

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Professional Experience

Mechanical Design Engineer - Epic Aircraft   8/2021 - present
- Currently serves as primary design engineer to lead design and certification effort for weather radar as an optional installation on the E1000 GX aircraft.
- Provides mechanical design support for Flight Into Known Icing certification project for the E1000 aircraft.

Mechanical Design Engineer - The Boeing Company   5/2015 - 8/2021
- Served as primary Mechanical Design Engineer for propulsion system installation for proprietary spacecraft program. Led the design from initial concept development of propulsion system layout through Model Based Engineering (MBE/MBD) build to print package release.
- Served as associate design engineer on structural design of proprietary R&D project for P8 aircraft. Implemented Full-Size Determinant Assembly (FSDA) design practices. Presented design as part of the enterprise standard design process.
- Supported configuration development for commercial derivative military aircraft programs including integration of mission systems onto Boeing platforms such as 777X, 737, 747-8I, and 767-2C.

Programming Skills

Python, Django, Git, Heroku, Bootstrap, PostgreSQL, SQL, MATLAB, Java, CSS3, HTML5

Personal Projects

Meal Wizard: https://mealwizard.herokuapp.com/
- Developed a full-stack, mobile responsive website for planning weekly meals, generating shopping lists, and sharing recipes with other users.
- Created functionality for new user registration, implemented authorization/authentication, random weekly meal plan generation, and custom user settings configurable on the user profile page.
- User experience customized to show recipes and meal plans created by the user as well as those of users followed.

Running Performance Calculator: https://running-performance.herokuapp.com/
- Developed a full-stack, mobile responsive website for predicting future running race performance and ranking past running performances at various distances.
- Implemented prediction of race performance for custom race distances using Grade Adjusted Pace calculations for average gradient input.
- Built application using the Python framework, Django, and deployed to the web with Heroku.

Education

Master of Aerospace Engineering   Graduation date: June 2019
University of Washington

Bachelor of Science in Mechanical Engineering   Graduation date: March 2014
Oregon State University