Carson Frankovich

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EDUCATION

Embry-Riddle Aeronautical University | BS Software Engineering, Minor Cybersecurity Engineering, Applied Math
Graduation Date: May 2026

EXPERIENCE

Student Unmanned Aerial Systems   *October 2023 – Present*
Software Team Lead   *Daytona Beach, FL*
- Led the design and implementation of an aerial navigation system, comprising a finite state machine for avionics control and machine learning algorithms for visual environmental awareness
- Initiated and oversaw a parts request process, playing a key role in budget planning, saving 23% of allocated funds
- Focused on creating scalable architecture and comprehensive documentation, facilitating ease of onboarding for future developers and ensuring project sustainability

Embry-Riddle Aeronautical University College of Engineering   *January 2023 – Present*
Computer Science Tutor   *Daytona Beach, FL*
- Offered one-on-one tutoring to students struggling with upper-level courses, raising test scores about 10%
- Provided targeted assistance in homework and lab assignments, leading to students consistently achieving high As
- Developed personalized lesson plans tailored to individual needs

Autonomous Maritime Robotics Association   *August 2022 – Present*
Software Engineer   *Daytona Beach, FL*
- Developed publisher and subscriber software utilizing the ROS 2 (Robot Operating System) library, leading to enhanced underwater navigation and data processing utilizing LiDAR, SONAR, and DVL sensors
- Led the migration from ROS 1 to ROS 2, including the implementation of a cross-version bridge to integrate packages unavailable in each version
- Authored technical reports and managed documentation, providing clear references for the team

PROJECTS

Ground Station for Operations and Testing   *November 2023 – Present*
- Developed a ROS 2 (Robot Operating System) package for real-time data transmission using TCP and UDP clients
- Created a camera data transmitter module integrating OpenCV with ROS 2 for image streaming
- Contributed to frontend development using React for a user-friendly interface, allowing for operators to easily access data needed during and after operations

Omniclothingshop   *August 2023 - Present*
- Developed a full-stack e-commerce application using React, NodeJS, and Express
- Integrated GraphQL for efficient data retrieval and management, enhancing application performance
- Developed RESTful APIs for user and product management functionalities, ensuring scalable backend operations
- Collaborated effectively using Git for version control and project management

eBay University Machine Learning Challenge   *June 2023 – October 2023*
- Led team of 3 developers, creating a machine learning model, classifying German shoe listings using PyTorch
- Engineered data preprocessing pipeline for handling and transforming large amounts of proprietary raw text data
- Employed classification metrics such as precision and F1-score for evaluation, scoring 0.73 and 0.79 respectively

SKILLS

- **Technologies:** Linux (Gentoo, Arch, Ubuntu), Git, Docker, ROS, SMACC, OpenCV, PyTorch, MLflow, Scikit-Learn, NodeJS, React, Express, GraphQL, PostgreSQL, Prisma
- **Programming/Scripting Languages:** Python, C++, C, Java, JavaScript