ISAAC VANDOR

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EDUCATION

OLIN COLLEGE OF ENGINEERING
B.S. Engineering: Robotics 2019

EXPERIENCE

Olin Robotics Lab · 2015 to Present
Lab Administrator
Coordinated with multiple private engineering firms and government contractors on robotics research for different types of autonomous systems. Managed 5 student teams (30+ people) in designing, developing, and testing various levels of autonomy in robotic systems for specific use cases in collaboration with outside sponsors.

Olin College of Engineering · 2015 to Present
Rapid Prototyping Assistant
Responsible for operating and maintaining rapid prototyping workshop in the Olin College Robotics Lab and teaching rapid prototyping design and fabrication techniques to other students. Trained operator/instructor on Stratasys Dimension 1200es 3D printer, Shopbot CNC Router, and Markforged Mark Two 3D Printer.

Olin Robotics Lab · 2015 to Present
Robotics Researcher
Designed autonomous systems for different research applications: an android application for tracking large pelagic fish, a fast, lightweight drone for use in GPS-denied environments, and a unified autonomy control system for submersible, surface, ground and air vehicles.

DP Technology · 2013 to 2015
Software Quality Assurance Intern
Managed quality assurance team for Esprit, an integrated CAD/CAM software package. Coordinated with engineers across projects to implement customer feedback. Developed a set of templates for CNC machines enabling users to customize software to their personal machine setup.

PROJECTS

Olin Aquatic Robotic Systems - Team Coordinator/Electrical Subteam PM · Aug 2015 to Present
Developed a fully autonomous 4.3m long sailboat capable of performing complex computational tasks (i.e. computer vision, autonomous navigation, station-keeping) on the water with no human input. Responsible for electrical system design and implementation using Solidworks Electrical suite and Autodesk Circuits.

HI Tag Platform - PM/iOS Development · Jan 2016 to Present
Designed and developed a technology platform for tagging and tracking economically important species of fish. Created an android app, a new RFID-based tag, and a web interface to provide data to ocean researchers interested in studying these species. Presented research results at IEEE Oceans '16 (Also served as a session chair).

Kinetic Sculptures - Mechanical Design/Fabrication · Jan 2016 to May 2016
Designed and fabricated a kinetic sculpture powered by a small DC motor and a second, entirely wind-powered sculpture using milling, turning, routing, 3D printing, water-jetting, thermoforming, and other fabrication techniques. Developed a full CAD package and design report intended to highlight each of the various mechanical design and prototyping techniques used in the process.

Facial Recognition Program - Software Development · Apr 2016 to May 2016
Developed a program for facial recognition using various matrix analysis techniques, including the eigenfaces method and principle component analysis. Wrote a paper to analyze the effectiveness of these techniques in recognizing faces across datasets and compared the success of the program with other widely-used facial recognition methods.

SKILLS

DESIGN: Solidworks, Onshape, Adobe Creative Suite, Circuit Design, Esprit, Grabcad, Autodesk Fusion 360
PROTOTYPING/MANUFACTURING: 3D Printing, CNC/Manual Mill, Lasercutter, Lathe, Composite 3D Printing, CNC Router, Soldering
SOFTWARE: Python, HTML + CSS, Arduino, Matlab, ROS, C, Ardupilot