Richard Fukutome

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EXPERIENCE

UNDERGRADUATE RESEARCH | AUTOMOUS FLIGHT SYSTEMS LABORATOY | SEPTEMBER 2013 – JUNE 2014

- Develop software to perform collision awareness for unmanned aerial systems in C#
- Software implemented into Insitu's ICOMC2 ground station as a plug in
- Visualize scenarios in Unity 3D with assets created in Blender
- Unit testing of production code in C#

UNDERGRADUATE RESEARCH | NONLINEAR DYNAMICS AND CONTROL LAB | DECEMBER 2012 – SEPTEMBER 2013

- Autonomous Underwater Gliders
  - Coded with C++ and the ROS framework
  - Converted MATLAB code into C++
- Fin Actuated Autonomous Underwater Vehicles
  - Tested hardware
  - Debugged code in C++
  - Coded GUI elements in C++
  - Node communication in ROS to multiple nodes

AIRCRAFT DESIGN: PROJECT STORM | DEPARTMENT OF AERONAUTICS | JANUARY 2014 – JUNE 2014

- Designed and constructed a Research UAV with configuration features and control devices for application to an advanced supersonic aircraft concept
- Designed, built and tested propulsion system including inlets, nozzles, and nacelles
- Data analysis for propulsion systems to determine optimal configuration
- Wind tunnel tests in both a 3x3 wind tunnel and Kirsten wind tunnel
- Fabricated parts for the UAV using technique including carbon fiber/fiber glass layups

DESIGN PROJECT: AERODYNAMIC DECELERATOR | DEPARTMENT OF AERONAUTICS | MARCH 2013 – JUNE 2013

- Designed, constructed, and tested different types of parachutes to analyze drag qualities
- Construction of parachutes done using CNC machine for molds and fiber glass layups
- CFD Analysis of different shapes and sizes of different parachutes
- Streamline Flow Visualization in a water tunnel using dye injection

EDUCATION

BACHELOR OF SCIENCE | JUNE 2014 | UNIVERSITY OF WASHINGTON, SEATTLE

- Major: William E. Boeing Department of Aeronautics and Astronautics
- GPA: 3.28
- Honors: Dean's list
- Related coursework: Engineering Fundamentals, Upper level aerospace courses, Physics, Calculus, Differential equations. Matrix algebra, Sustainable design, Technical writing, CAD

SKILLS AND ABILITIES

PROGRAMMING LANGUAGES

- C# and C++

COMPUTER PROGRAMS

Visual Studios	LaTeX	Solidworks	Microsoft Office
MATLAB	Unity 3D	Rhino 3D	-Word, Excel, PowerPoint
Wolfram Mathematica	Blender	Unigraphics	

ADDITIONAL LANGUAGE: PROFICIENT IN JAPANESE