

Education

Franklin W. Olin College of Engineering

May 2009

B.S. In Mechanical Engineering, emphasis in product & mechanical design, fabrication, & mathematical modeling

Project Work

Olin College SAE Baja

2005-2009

Undergraduate competition for an off-road racing vehicle that is designed, built, and taken to competition. Drivetrain engineer (05-06), drivetrain lead (06-07), design manager (07-08), & fabrication manager (08-09).

Senior Consulting Project in Engineering (SCOPE)

2008-2009

Capstone engineering project working with DRS Technologies on Electronic Regenerative Load Banks. Worked as project manager first semester and vendor liaison second semester.

Design for Manufacturing: Light Project

2009

Design depth in a team of 4 designing and manufacturing a LED light with mass manufacturing techniques including injection molding, tool design, design for assembly, and part reduction.

Robotics Course: Sailboat Project

2009

Class final project in a team of 4 developing software in LabView to sense, think and act for a "sailboat" robot. Utilized vision systems, influence map decision making, and asynchronous action control.

Computational Modeling of Downhole Energy Generation

2008

Finite element modeling of geometrically complex flows for energy generation for a corporate client with another student and Professor Burt Tilley. Used COMSOL, MATLAB, & Maple to create and validate models.

Rocket Propulsion Independent Study

2008

Design of a 100-lb thrust liquid engine using analytical and computational models working with two students.

Distributed Engineering Design: Coffee Cup Holder

2007

Development of a conceptual design with a team of students distributed across the US and Europe.

UAV Design and Fabrication

2006

Production of a small UAV with a team of students utilizing a custom built control system and flight hardware.

User Oriented Collaborative Design: Surgeons

2006

Identification of needs of surgeons working with a team of students and resulting in a conceptual prototype.

Work Experience

DRS Technologies

2007, 2008

In 2007, developed new paradigms for two of the companies' major product lines to significantly improve fuel efficiency in the field. In 2008, developed a control system for a Multiple Input, Multiple Output system based on the previous summer's work. Worked on a team with one other student both summers.

Olin College Machine Shop

2007-2009

Worked as an assistant machinist fulfilling work orders and conducting maintenance on 2 and 3 axis CNC Mills, Lathes, WaterJet cutter, Laser cutters, and other machines.