

Daniel Rhyoo

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EXPERIENCE

GE Aviation, OH

Engineering Intern in Continuous Engine Operation Data

MAY 2017 – AUGUST 2017

- Developed tools, like historical trend graphs, data filtering, etc., for Flight Phase Analyzer (GE's web/Predix based analytic viewer) using JS and R Shiny
- Created a prediction model (logistic regression w/ CV, stepAIC, etc.) for estimating maintenance duration based on multiple engine module parameters using Python and R
- Created a cost analysis report on potential savings in modifying data intake process
- Developed a web tool to automate and standardize the creation of value story presentations

MechSE Department of UIUC, IL

ESPL Lab Assistant

FEBRUARY 2017 – PRESENT

- Maintain student laboratory's machine shop

WET Design, CA

Product Development and Engineering Intern

JUNE 2016 – AUGUST 2016

- Designed and machined experimental valves that emphasized simple mechanisms and low cost
- Created and programmed data loggers to remotely monitor test rigs for long periods of time
- Designed and prototyped a full redesign of an existing product that lowered cost and ease of serviceability/installation with two team members

Freelance

PRESENT

- Designed and machined custom carbon fiber quadcopter frames for clients
- Programmed UI/UX of client's website that required login, searching users, and group selection

LEADERSHIP EXPERIENCE

IFE: Formula SAE Electric Team

AUGUST 2016 – PRESENT

Manufacturing Captain (2017 – Present)

- Working on establishing a PDM system through VPS or a homebuilt server
- Created and programmed multiple data loggers for recording the car's temperature, acceleration/gyro, wheel RPM, pressure, etc.

Suspension & Chassis Subsystem Member (2016 - 2017)

- Pioneered use of topology optimization software, Inspire, in the team to minimize weight on bell cranks (Weight saving: ~45% from base model) and other parts
- Designed and manufactured a custom carbon fiber steering wheel, adjustable/folding jacking bar, a CNC tube notcher/profiler (to-be-assembled.)
- Assembled and TIG welded car and parts like aluminum accumulator container
- Modified/ran passing FEA for 20kN accumulator mounting points

CVHS FRC Robotics Team 589

AUGUST 2014 – JUNE 2016

Robot Captain & CAD Team Lead (2015 - 2016)

- Managed a team of 120+ members in the manufacturing, design, and testing of a robot

FIRST Mentor (2014 - Present)

- Volunteered to lead and mentor students at Monte Vista Elementary School about Lego robotics

PROJECTS (MORE ON DANIELRHYOO.COM)

Foldable, In-Hub Motor Longboard (2016)

- Design only, worked in 4-person team for ME170 Final Design Project using Creo 3.0
- Motor designed to be direct drive and housed in rear wheels

Brushless DSLR Gimbal (2015)

- Carbon fiber gimbal that can stabilize a camera up to 1.5kg in 2-axis
- Open sourced the parts and build guide online where it received over 100k views

EDUCATION

University of Illinois at Urbana-Champaign

EXPECTED GRADUATION:

MAY 2020

B.S. in Mechanical Engineering

GPA: 3.45

AWARDS

Outstanding Achievement

Award for Excellence in

Engineering Design

ME170 CAD Design Award
by UIUC MechSE

SKILLS

CAD

Solidworks

Creo 3.0

Inventor

CAM

Experience in a machine shop
(Mill, Lathe, CNC, Waterjet, TIG)

Intelli-Max CAM

InventorCAM

HSMworks CAM

SheetCam

Analysis

SolidThinking Inspire

Solidworks FEA

Programming

JavaScript

R Shiny

Python

Java

SQL

C++

3D Modelling

Autodesk Maya

Design

Adobe Creative Suite

DaVinci Resolve

LANGUAGES

English

Korean