

# Daniel Rhyoo

danrhyoo@tutanota.com  
danielrhyoo.com

2448 Teasley Street  
La Crescenta, CA 91214  
(213)-631-6944

## 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 a variety of 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
- Designed a lightweight front end (UI/UX) of client's website that required user login, searching for other users, and group selection using

## 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

*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