Dominic Herincx

dherincx@gmail.com | (323) 775 - 6502 | dominicherincx.me

Education

Northwestern University, Evanston, IL **June 2019**
- Mechanical Engineering, B.S.
- Coursework Examples: Stress Analysis, Manufacturing Methods, Mechanics of Materials, GD&T, Fluid Mechanics

Work Experience

Boosted, Mountain View, CA **July 2019 - Present**

Contract Mechanical Design Engineer
- Supported product design and production for various lightweight electric vehicle products, with focus on DFMA
- Developed torque specifications, designed/prototyped rubber components, implemented local strain characterization process, and developed simulations to predict reliability testing outcomes
- Designed and implemented all waterproofing features for new electronic lighting product

SpaceX, Hawthorne, CA **June 2018 - Sept. 2018**

Production Intern, Dragon Fluid Systems
- Developed and implemented chemical processing procedure for propellant tanks, improving NASA specification adherence and reducing operation time by 80%
- Designed and tested reusable closeout valves to eliminate foreign object debris introduction in propellant feedlines, usable on 152 welds and cutting 250 hours of borescope inspections
- Quantified preload relaxation due to use of sealants on faying surfaces of bolted joints through empirical analysis
- Supported Crew Dragon orbital tube welding production line by creating component work instructions and analyzing weld defects to disposition issue tickets
- Designed fluid system to enable easy chemical processing of flight parts and ground support equipment

Simplehuman, Carson, CA

Mechanical Engineering Intern **June 2017 - Aug. 2017**
- Developed concepts for automatic disengaging clutches to prevent backdrive in electric motors
- Designed and built a stepping robot to life-cycle test trash cans and evaluate performance of prototypes

R&D Intern **June 2016 - Aug. 2016**
- Designed and prototyped air flow control device with lower weight and cost, and smaller size than market equivalents
- Developed a prototype for a newly proposed product, taking the project from a preliminary idea to a proof-of-concept

Boeing, El Segundo, CA **June 2014 - Aug. 2014**

High School Intern

Activities

Space Ice CubeSat Mission, Evanston IL **Sept. 2017 - Present**

Lead Engineer
- Led satellite payload design to ensure in-house machinability, structural integrity, and compliance to standards
- Handled logistics such as communication with partners, manufacturing schedules, and purchases

Northwestern Formula Racing - FSAE, Evanston, IL **Sept. 2015 - Present**

Aerodynamics Engineer
- Led design and CFD analysis of vehicle wings, with focus on improving vehicle handling characteristics
- Developed an in-house prepreg carbon fiber layup process, reducing manufacturing time by 85%

Suspension Engineer
- Designed components (uprights, wheel centers, rockers) for weight and MOI reductions, with DFMA considerations
- Developed GD&T drawings for outsourced components
- Performed bearing selection for wheels and designed corner packaging to reduce weight and MOI of system
- Led CNC mill training and supported general shop training for new members

FIRST Robotics Competition, Carson, CA **Sept. 2013 - June 2015**

Captain
- Led design, manufacturing, and assembly of custom gearboxes, a drive train, and a lift mechanism for competition
- Mentored summer robotics camp in S. Korea, teaching elementary through high school students fundamentals of VEX Robotics, including design, assembly, and programming of small competition robots

Skills

CAE: CAD (SolidWorks, NX/Unigraphics), CAM (NX), PDM (SolidWorks PDM, Teamcenter), CFD (Start-CCM+, Fluent), FEA (SolidWorks, Ansys Mechanical/Workbench), Schematics (Microsoft Visio)
Manufacturing: CNC/Manual Mill, Manual Lathe, Additive Manufacturing, Injection Molding, GD&T
Programming: Python, C#/C++, Matlab, HTML, CSS
Media Tools: Illustrator, Photoshop, KeyShot, Final Cut Pro, After Effects