

Dominic Herincx

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Education	Northwestern University , Evanston, IL June 2019							
	<ul style="list-style-type: none">- Bachelor of Science in Mechanical Engineering- Coursework Examples: Stress Analysis, Manufacturing Methods, Mechanics of Materials, GD&T, Fluid Mechanics							
Work Experience	California Academy of Mathematics & Science (CAMS) , Carson, CA June 2015							
	<ul style="list-style-type: none">- Concurrent enrollment at California State University, Dominguez Hills (CSUDH)							
	SpaceX , Hawthorne, CA June 2018 - Sept. 2018							
	<u>Production Intern, Dragon Fluid Systems</u>							
	<ul style="list-style-type: none">- Developed and implemented chemical processing procedure for propellant tanks, improving 100R1 specification adherence and reducing operation time by 80%- Designed and tested reusable tube plugs 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 a series of experiments- Supported Dragon orbital tube welding production line by creating component work instructions and analyzing weld defects to disposition issue tickets- Designed flushcart to enable easy cleaning of a variety of flight parts and ground support equipment							
	Simplehuman , Carson, CA June 2017 - Aug. 2017							
	<u>Mechanical Engineering Intern</u>							
	<ul style="list-style-type: none">- Developed concepts for automatic disengaging clutches to prevent back drive in electric motors- Designed and built a stepping robot to life-cycle test trash cans and evaluate performance of prototypes- Evaluated designs for proper design for manufacturing and assembly (DFM and DFA)							
	<u>R&D Intern</u> June 2016 - Aug. 2016							
	<ul style="list-style-type: none">- 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							
Activities	Boeing , El Segundo, CA June 2014 - Aug. 2014							
	<u>High School Intern</u>							
	<ul style="list-style-type: none">- Researched and presented on fiber optic gyroscopes and their applications- Built fiber optic gyroscope to demonstrate understanding of Sagnac effect							
	Space Ice CubeSat Mission , Evanston IL Sept. 2017 - Present							
	<u>Lead Engineer</u>							
	<ul style="list-style-type: none">- Led the payload design to ensure machinability, structural integrity, and compliance to standards- Developed methods and fixtures to manufacture small components without use of specialized machinery- Handled logistics such as communication with partners, manufacturing schedules, and purchases							
	Northwestern Formula Racing - FSAE , Evanston, IL Sept. 2015 - Present							
	<u>Suspension Engineer</u>							
	<ul style="list-style-type: none">- Pioneering transition to Titanium printed uprights with topology optimization- Designed wheel centers with 17% moment of inertia and 6% weight reductions, and aerodynamics package mounts- Performed bearing selection for wheels and designed corner packaging to reduce weight and MOI of system- Implemented new machining techniques, such as t-slot cutting and multi-piece setups, to increase machining efficiency- Led design of aesthetic-driven elements, such as the paint job, wing endplates, and branding materials							
	Design Thinking and Communication , Evanston, IL Sept. 2015 - June 2016							
<u>Project Manager/Design Engineer</u>								
<ul style="list-style-type: none">- Applied principles of human-centered design to help paralysis patients perform the daily and therapeutic tasks of washing dishes and painting								
Skills	FIRST Robotics Competition , Carson, CA Sept. 2013 - June 2015							
	<u>Captain</u>							
	<ul style="list-style-type: none">- Led design, manufacturing, and assembly of custom gearboxes, a drive train, and an elevator lift mechanism for a competition robot- Mentored summer robotics camp in S. Korea, teaching elementary through high school students fundamentals of VEX Robotics, including the design, assembly, and programming of small competition robots							
	<table border="0"><thead><tr><th>CAE Software</th><th>Manufacturing</th><th>Programming</th><th>Media Creation</th></tr></thead><tbody><tr><td><ul style="list-style-type: none">- SolidWorks (CAD, FEA)- NX/Unigraphics (CAD, CAM)- Ansys (Workbench, Mechanical, Fluent)- Microsoft Visio (Schematics)</td><td><ul style="list-style-type: none">- CNC/Manual Mill- Manual Lathe- Additive Manufacturing- Injection Molding- GD&T</td><td><ul style="list-style-type: none">- Matlab- C++, C#- Arduino- Python- HTML, CSS</td><td><ul style="list-style-type: none">- Illustrator, Photoshop- Keyshot- Final Cut Pro- After Effects</td></tr></tbody></table>	CAE Software	Manufacturing	Programming	Media Creation	<ul style="list-style-type: none">- SolidWorks (CAD, FEA)- NX/Unigraphics (CAD, CAM)- Ansys (Workbench, Mechanical, Fluent)- Microsoft Visio (Schematics)	<ul style="list-style-type: none">- CNC/Manual Mill- Manual Lathe- Additive Manufacturing- Injection Molding- GD&T	<ul style="list-style-type: none">- Matlab- C++, C#- Arduino- Python- HTML, CSS
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