# ARTURAS MALINAUSKAS

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## EDUCATION

**Northwestern University** *September 2015 – June 2019*
*Mechanical Engineering Bachelor of Science*

**ETH Zurich** *September 2018 – January 2019*
*Mechanical and Process Engineering Exchange Student*

## WORK EXPERIENCE

**Kitty Hawk** (Project Heaviside) *January 2020 – July 2020*
*Mechanical Engineering Intern*
- Redesigned an eVTOL propeller hub for 16% higher loads, 100x longer lifetime, and simpler assembly
- Minimized hub mass by finding critical stresses in key components with hand calculations and FEA
- Supported test engineers by collecting vibration data and fixturing propellers for wind tunnel hardware tests
- Selected commercial off the shelf (COTS) bearings, fasteners, and o-rings which met design requirements
- Drafted GD&T drawings for prototype parts and reviewed other mechanism engineers' drawings

**Segal Prototyping and Fabrication Lab** *September 2016 – June 2019*
*Prototyping Specialist*
- Consulted with 100+ engineering projects on effective design for manufacturing and assembly (DFMA)
- Trained 80+ students to use the mill, lathe, laser cutter, water jet cutter, and other manufacturing tools

**Whirlpool Corporation** (Advanced Development & Innovation Group) *June 2018 – August 2018*
*Structures Engineering Intern*
- Prevented mechanical failure of sheet metal parts by assessing failure modes with design of experiments (DoE)
- Enabled rapid analysis of new components' fatigue and impact strengths by creating custom testing apparatus
- Researched welding methods and adhesives suitable for manufacturing 10,000+ units of a new product

## PROJECT EXPERIENCE

**Precision 6 Degree of Freedom Kinematic Motion Platform** *January 2019 – June 2019*
*Project Manager & Mechanical Engineer*
- Expanded the Neuroscience & Robotics Lab's ability to perform multi-axis tensile tests by leading 5 cross discipline engineers in developing electro-mechanical systems for a custom motion platform on a $5500 budget
- Designed linear actuators to move at 120 mm/s under 50 N load with 0.1 mm precision
- Managed JIRA / Confluence sites, delegated tasks in agile scrum sprints, and organized technical documents
- Owned 3D CAD (SolidWorks) assembly with 66 unique part models and produced relevant GD&T drawings

**NASA Student Launch Competition 2019** *September 2018 – April 2019*
*Co–Lead of UAV Payload Deployment Team & Active Drag System Team*
- Delivered 2 payloads on a $600 budget in 8 months by managing 7 teammates over 3 design review periods
- Integrated PCBs, batteries, switches, and motors into payload bulkheads with 3D printed brackets
- Managed top level CAD (Siemens NX) assembly of 28 custom part models made by 7 different teammates
- Engineered lightweight reliable mechanisms (< 2 lbs) to retain and orient the rocket's UAV payload
- Led failure mode and effects analysis (FMEA) on payload features and organized 200+ pages of documentation

**STEM Outreach for the Northwestern Rocketry Society** *May 2016 – May 2017*
*Co–Chair of Educational Programming & Event Coordination*
- Grew outreach engagement by 50%, totaling 75 students in 3 schools, by coordinating with local non-profits
- Created applied sciences / engineering curriculum and taught it to students in a weekly after-school club

## SKILLS & ADDITIONAL INFORMATION

**Computer**: NX (CAD & CAM), SolidWorks (CAD, PDM, & FEA), Fusion 360, MATLAB, C, MS Excel
**Fabrication**: CNC / Manual Mill, Lathe, 3D-printer, Laser Cutter, Circuits (PCBs), Carpentry, Sewing, GD&T
**Interests**: Making Furniture, Slow Cooking, Cycling, Podcasts, Alpine Skiing, Astronomy, Yoga, Trail Running