# Daniel Franko

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## Summary of Skills and Qualifications

- Strong mechanical design skills developed through internships and student teams
- Expert in SolidWorks and proficient in NX, AutoCAD, Inventor, and MS Excel
- Practical experience of joining, machining, and manufacturing processes
- Extensive hands-on experience in mechanical and electrical settings
- Clear, confident communication skills gained in technical and non-technical environments
- Various leadership experiences gained through volunteer and extracurricular involvement

## Related Experience

**Mechanical Engineering Intern** | May 2018 – August 2019 | Saskatoon, SK
Doepker Industries Ltd.

- Developed a $110k custom grain bulker trailer with the goal of driving design innovation
- Oversaw production and provided manufacturing support during project construction
- Collaborated with engineers or financing departments to advance time-sensitive projects
- Obtained Lean White Belt Certification and identified $125,000 in annual savings

**Rover Project Manager** | September 2018 – August 2019 | Saskatoon, SK
University of Saskatchewan Space Team

- Managed a team of 20 students to design and construct a Mars rover prototype with budgetary and schedule constraints
- Designed and fabricated a completely custom carbon fibre rover chassis and suspension

**Mechanical Engineering Coop Student** | May 2017 – August 2017 | Burlington, ON
voestalpine Rotec Summo Corp. | Project: Pretensioner Line & Ball Check

- Re-engineered components and subsystems to improve machine repeatability, decrease cycle time, and eliminate machine crashes
- Executed systematic troubleshooting and root-cause-analysis after machine crashes.
- Completed rapid prototype and iteration of 3-D printed tooling before CNC machining

**Mechanical Engineering Coop Student** | May 2016 – August 2016 | Burlington, ON
voestalpine Rotec Summo Corp. | Project: Pretensioner Line

- Completed design of a $1.5M automated machine to make seat belt pretensioners
- Included conceptual design, linear motion, pneumatics, cycle time, and detailed design
- Designed, drafted, and packaged mechanical systems for manufacture, with SolidWorks

## Education

**College of Engineering – Mechanical Engineering** | Sept 2014-April 2020
University of Saskatchewan, Saskatoon SK

- 2015-2016, 2017-2018 Dean's Honour Roll (Average > 77%)
- Machine Design
- Fluid Power Circuits
- Advanced Mechanical Design
- Manufacturing Processes

## Skill Set

### Design Skills
SolidWorks CAD
SolidWorks FEA
GD&T Drawings
PDM Professional
DFMA
ANSYS
Matlab
MS Excel
MasterCAM

### Mechanical Design
FEA
Sheet Metal Design
Weldments
Kinematic Studies
Force Analysis
Fastener Selection
CNC Components
FDM 3D Printed Parts
Coating Selection
Drawing Packages
AGMA Gear Selection

### Relevant Projects
2U CubeSat Frame
USST Mars Rover
Formula SAE
Grabber Design Project
Hilsch Vortex Tube

### Fabrication Skills
Lathe
Manual Mill
CNC Milling
Welding (MIG/TIG)
Sheet Metal
Carbon Fiber
Composites
Jigging
Soldering
Woodwork

### Interests
Rock Climbing
Running
Cycling
Reading
Hiking/Camping
Soccer
Hockey