

# NICOLAS HALL

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## Skills and Certifications

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- **Engineering:** Mechanical Design, FEA, CAD (Inventor & SolidWorks), Pneumatics, DFMEA, CFD, GD&T (ASME Y14.5), Tolerance Analysis
- **Manufacturing:** Design for Manufacture, Supplier Relations, Material Selection
- **Tools/Software:** MATLAB, LabVIEW, ERP, Mathcad, MS Office, Autodesk Suite

### Certifications:

- SolidWorks Associate
- Pneumatics Specialist (IFPS Certified)

## Experience

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### IMI NORGREN

Littleton, CO

*Mechanical Engineer*

*Sept 2021-Present*

- Delivered new complex fingertip assembly design for Norgren Adaptix. Designed components in Inventor CAD with supporting FEA, tolerance analyses, and DFMEA. Organized manufacture of new parts using metal injection molding and machining. Reduced cost compared to previous design by >40% with an improved feature set and generated new provisional patent.
- Completed new robotic test lab in for in-house testing. Setup Fanuc CRX along with relevant caging, vision systems, and support infrastructure. Created novel gripper designs for test applications and use with robot.
- Design test fixtures for use in vibrational testing. Analyze data and produce technical reports and presentations.
- Produce new product designs as part of Norgren's Innovation Group. Draw product requirements from new applications/customers to generate prototype designs.

*IMI Graduate Program*

*Sept 2019-Sept 2021*

- Rotated engineering roles across Norgren's AMER region (Littleton CO, Chicago IL, Rockford IL, Farmington CT). Completed rotations in R&D, Business Development, Operations, and Quality.
- Spearheaded an overhaul of Norgren Rockford's RMA process. Redesigned RMA cell layout on manufacturing floor, developed new ERP processes and relevant trainings, and worked directly with customers to resolve returns. Reduced RMA cycle time by over 50% and reduced open RMA count by 50% in under 6 months.
- Invented a new product (Adaptix) as part of an R&D role in an internal startup. Iterated design quickly to integrate customer feedback and test results. Owned team FEA analysis, component testing, and designs for housing sub-system. Generated 2 published patents.

### PRATT & WHITNEY

East Hartford, CT

*Programs Intern*

*(Jun 17-Aug 17)*

- Assisted team in critical upgrade activities for newly delivered engines by managing field issues, suppliers, and planning fleet retrofits.

### COLORADO HOUSE OF REPRESENTATIVES

Denver, CO

*Legislative Intern*

*Feb-May 17*

- Provided broad research for bills on healthcare, environment, and elections.

## Education & Other

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### COLORADO SCHOOL OF MINES

Golden, CO

*B.S. in Mechanical Engineering (cum laude), McBride Honors Program*

**LANGUAGES:** Fluent in English, working proficiency in German

**PERSONAL:** Dual American/German citizen

**INTERESTS:** Running, skiing, New Mexican food, and Formula 1