

Garrett K. Hall

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PROFILE

Mechanical Engineer with a Master's from the University of Texas at Austin and a passion for turning bold ideas into life-changing innovations. I've led the design and prototyping of neonatal devices that save lives, built biomechanical simulation models that push the boundaries of what's possible, and worked side-by-side with surgeons and clinicians to bring real-world needs to market-ready solutions. With a sharp eye for efficiency and a user-centered mindset, I possess strong skills in optimizing manufacturing processes and engineering products that merge precision with impact.

EXPERIENCE

UT COCKRELL SCHOOL OF ENGINEERING – Austin, TX.

8/24 – 5/25

Medical Device Development Research Assistant

- Led the design and prototyping of a novel Body Weight Support harness, enhancing mobility for stroke and spinal cord patients; improved patient safety and comfort based on iterative clinician feedback
- Engineered biomechanical simulation models in Solidworks and Opensim that improved gait analysis accuracy by 30%
- Validated device effectiveness by demonstrating proportional reduction in muscle activation during simulated gait

MATRIX – Ontario, Canada

Summer 2024

Product Development Intern (Remote Position)

- Applied Innovation Engineering to research and improved 20 of Matrix's existing products, involving adhesive and sealant manufacturing and packaging products and solutions
- Conducted 50+ prototype testing and surveys, achieving 90% positive feedback on new product designs and capabilities
- Played a key role in the development of a brand refresh, contributing to the redesign of 5 product lines, including automotive, construction, DIY, industrial, and maintenance adhesives and sealants

UT DELL MEDICAL SCHOOL/MCCOMBS SCHOOL OF BUSINESS – Austin, TX

7/23 – 12/23

Product Development Research Assistant

- Collaborated with pediatric surgeons and medical device experts to address a life-threatening health issue affecting 40% of newborns pertaining to underdeveloped breathing capabilities
- Designed and produced an endotracheal tube holder device for neonatal patients, reducing 75% of tube dislodgement
- Crafted a business plan for the endotracheal tube holder, including 2 patents, a thorough competitive analysis, and a business valuation model of \$7 million

CHAMPIONX – Houston, TX

Summer 2021

Innovation Intern

- Helped lead an Innovation Engineering program, in conjunction with Eureka!Inventing Consultancy, to develop a pipeline of new products
 - Worked collaboratively with 12 engineers and technical experts in the areas of water use and carbon emissions
 - Created 15 innovative ideas within these fields with a calculated 70% product success rate
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EDUCATION

UNIVERSITY OF TEXAS AT AUSTIN – Austin, TX

Master of Science in Mechanical Engineering

- Focus in Product Design and Manufacturing
- GPA: 3.84

BAYLOR UNIVERSITY – Waco, TX

Bachelor of Science in Mechanical Engineering

- Minor: Mathematics

Proprietary Software: Solidworks, Python, SQL, MATLAB, Simulink, LabVIEW, OpenSim

Operating Systems: iOS, WINDOWS

ADDITIONAL

- Achieved the rank of Eagle Scout, the highest rank, in the Boy Scouts of America
- Earned a Blue Belt Certification in Innovation Engineering, an innovative systems engineering development course sponsored by Eureka!Inventing Consultancy