Nathan Ryley Tharp

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SUMMARY:

Motivated, dedicated, and reliable recent mechanical engineering graduate pursuing an immediate position with an innovative company and willing to relocate. Seeking to integrate over a decade of diligent work experience with engineering skills from academic and freelance projects to further a passion for building the technology of the future.

SKILLS:

SolidWorks & AutoCAD	Engineering Design	Superb Organizational Skills
ANSYS, Matlab & Simulink	Finite Element Analysis	Strong Work Ethic and Interpersonal Skills
GD&T	Product Assembly	Outstanding Presentation Skills
Microsoft Office Suite	Technical Reporting	Great Written and Verbal Communication
Python & Arduino	Troubleshooting	Self-Starter and Self-Teacher

EDUCATION:

University of Texas at Tyler, Tyler, Texas — Graduated: 05/2020
Bachelor of Science in Mechanical Engineering – Cumulative G.P.A.: 3.4

RELEVANT EXPERIENCE:

University of Texas at Tyler (Tyler, TX)

Team Lead – Gait Rehabilitation Device, 07/2019 – 05/2020

- Conducted research in the biomedical field and found that the market was lacking rehabilitation hardware at an affordable cost for victims of stroke or spinal cord injury
- Developed manufacturing strategies for an innovative electro-mechanical system using 2D and 3D CAD modeling software, consisting of electric motors, aluminum linkages, and microcontrollers to find an effective product design and create part and assembly drawings
- Performed verification testing of customer specifications using FEA techniques in ANSYS, Matlab and SolidWorks to ensure design development process was successful prior to manufacturing
- Generated technical support documentation and developed presentations for training and design review using Microsoft Office and SolidWorks Visualize, leading to a polished and professional demonstration
- Maintained a network of accountability in a multidisciplinary group and delegated specific tasks to ensure completion of deliverables ahead of schedule and in a cost-effective manner
- Self-taught SolidWorks, SolidWorks Visualize, ANSYS, and Autodesk Inventor to complete project to the high standard set for the team, and furthered a passion for design and analysis
- Completed project on schedule and 40% under budget despite setbacks due to Coronavirus pandemic

Team Lead – Powered Lift, 01/2019 – 05/2019

- Designed and manufactured a powered jack that lifted 10,000% more than the minimum requirement leading to the team earning 1st place against 10 competing teams
- Project remained within budget and ahead of schedule due to networking and effective management

Team Lead – Walking Robot, 08/2018 – 12/2018

- Designed, assembled, and wired a 6-legged walking robot for both speed and agility which earned 1st place in competition against 8 teams by traversing a course the fastest
- Enjoyed overcoming obstacles, as well as gaining experience in robotics which aided in future endeavors
- Completed project 1 month ahead of schedule due to excellent team coordination, allowing for further optimization and providing the edge necessary to supersede the design of other teams

Team Member – CO2 Sensor, 08/2018 – 12/2018

- Developed a CO2 sensor which managed airflow into a room by manipulating a damper for use in demand control ventilation systems for the HVAC industry, leading to greater efficiency and lower consumer cost
- Self-taught Arduino coding language and developed an excitement for programming which persists to today

Team Member – Cable Camera, 01/2018 – 05/2018

- Assisted in development of a cable camera for use in recreational or professional videography
- Generated a marketing presentation video to convey design, specifications, and uses to customers