Harrison A. Dewhurst

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EDUCATION

Quinnipiac University, Hamden CT
Bachelor of Science expected May 2022
Major: Mechanical Engineering; Minor: Computer Science
Overall GPA: 3.93
Honors and Awards: Eagle Scout, Dean's List academic years 2018-2021, President of the eta Pi Engineering Honors Society, Excel Expert Certification

WORK EXPERIENCE

Pfizer Inc., Groton CT (remote working)
Student Summer Worker, May 2020 – August 2020

- Position in Cybersecurity Analytics and Service Intelligence team performing Data Engineering tasks to assess quality of field parsing and normalization of critical security data sources
- Develop regular expressions to correctly extract data where the field parsing was incorrect
- Increased number of data impurities reported in Pfizer's data lake by 75%

Boothroyd Dewhurst Inc., Wakefield, RI
Engineering Intern, May 2019 – August 2019

- Created advanced Excel macros using Visual Basic to test simulation scenarios in a metal extrusion process cost model
- Thousands of lines of code written to allow for many materials, machines, and fixed conditions such as billet temperature, exit velocity, and ram force
- Reduced testing time of metal extrusion manufacturing process by 85% over existing manual testing methods

The Learning Commons, Hamden CT
Calculus Peer Fellow and Tutor, January 2019 – January 2021

- Collaborate with Calculus I & II professors on teaching methods and creation of calculus review problems
- Conduct study sessions to complete review problems and go over class notes which aided in exam preparation
- Hold open tables every week to help up to 30 students with their basic and advanced calculus homework

ENGINEERING EXPERIENCE

QU School of Engineering, Hamden, CT
Medtronic Knot Tying Robot Senior Design Project, September 2021 – Present

- Design and manufacture a custom machine to tie knots in medical grade suture
- Cycle time of less than 10 seconds, with an anticipated 50% cycle time reduction due to automation
- Formulated a unique solution to tie an overhand knot autonomously

Solenoid Engine Design Project, August 2021 – October 2021

- Engineer, build, instrument, and operate a 3-cylinder solenoid engine to spin a flywheel
- Developed a radial engine machined out of acrylic and assembled with 3D printed ABS parts
- Arduino, photogates, and many electrical components used to get flywheel speed up to 790 rpm

ACTIVITIES

eta Pi Engineering Honors Society, *President*, August 2021 – Present, *Member,* August 2020 – Present
Grand Challenge Scholar Program (GCSP), *Vice President,* August 2021 – Present, *Member,* January 2019 - Present
Quinnipiac University Symphony Orchestra, *First Chair Viola,* August 2018 – Present

SKILLS

CAD: SolidWorks, SolidWorks Large Assemblies, SolidWorks Small Assemblies, SolidWorks Drawings, Motion Studies, Simulations, Machining Operations
Analysis: Excel, Microsoft Visual Basic, Pivot Tables, Pivot Charts, MATLAB, DFMA, Java, Splunk, Arduino, GitHub
Interpersonal: Boy Scouts of America, a culmination of over a decade of leadership, character development, and practical life skills between youth and adolescent years. Teamwork skills developed through many group engineering projects.

INTERESTS

Travel, Golf, Skiing, Cryptography, Chess, Breadboard Design