

Daniel Nevin

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WORK EXPERIENCE

Steelfort Engineering

Mechanical Design Engineer

June 2021 – Feb 2023

Palmerston North, NZ

- Designed and Engineered custom industrial heat exchangers and stainless-steel equipment for manufacture across a number of projects ranging from full cool store fit-outs, to modifying large pharmaceutical product tanks.
- Drafted detailed manufacturing drawing packages, bills of materials, and design verification documents using Autodesk Inventor and the Vault.
- Ensured AS1210 code compliance for Steelfort's hazardous pressure vessels through engineering calculations and design verification documentation.
- Developed supporting documentation and post-purchase manuals for Steelfort Engineering's hazardous products, such as, Pharmaceutical tanks and high-pressure Heat Exchangers.
- Managed products from the client's specification through to the shop floor for manufacturing.
- Worked in the capacity as the company's sole Mechanical Design Engineer.

EDUCATION

The Odin Project

Full-Stack Web Development Course

December 2022 - Now

Online

- Completed the Frontend curriculum and learned how to build accessible, interactive, and responsive web applications using HTML, CSS, JavaScript, React.js TailwindCSS, and Firebase across 19 self-driven projects including a custom Reddit clone with user authentication and persistent user submitted content.
- Learned how to implement and institute version control using Git and Github, and ensure product functionality by implementing automated unit tests using Jest.

Massey University

Bachelor of Engineering with Honours (Mechatronics)

February 2016 - December 2020

Palmerston North, NZ

- Developed a custom computer vision system in Python and LabView to identify apples, calculate their distance and bearing from a camera, and then guide a custom multi-joint robotic arm through the process of gripping and moving a load to its desired position.
- Designed and prototyped an amphibious pipe-crawling robot for the Palmerston North City Council to investigate possible contaminant spread throughout the local stormwater system.
- Researched the structure and geometry of a 3-Dimensional lattice of auxetic meta-materials using the SolidWorks simulation suite, with the aim to optimise the cells internal geometry for impact protection.
- Custom designed, drafted, and manufactured a Kinyon-style Pneumatic Power Hammer for Awatapu College using recycled and donated materials for the purpose of manufacturing Damascus steel parts.

SKILLS

Mechanical Design; Design for Manufacture; Sheetmetal Design; HVAC Design; Modelling and Drafting in SolidWorks and Autodesk Inventor; Finite Element Analysis; Engineering Mathematics; 3-D Printing; Formal Writing; Written Communication; Software Development using Python, C, and C++; Sensor and Actuator Control using Microcontrollers; Computer Vision System Development; Web Development using JavaScript, React.js, and TailwindCSS;