# Daniel Nevin

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## WORK EXPERIENCE

**Steelfort Engineering** **June 2021 – Feb 2023**
*Mechanical Design Engineer* *Palmerston North, NZ*

- Designed and Engineered custom Industrial Heat Exchangers for manufacture across a number of projects ranging from full cool store fit-outs, to custom designed food & dairy equipment.
- Drafted detailed manufacturing drawing packages 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** **December 2022 - Now**
*Full-Stack Web Development Course* *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, fully-functional Reddit clone with user authentication and persistent user submitted content.
- Learned how to implement and institute version control using Git and Github.
- Learned how to implement automated unit testing using Jest to ensure product functionality.

**Massey University** **February 2016 - December 2020**
*Bachelor of Engineering with Honours (Mechatronics)* *Palmerston North, NZ*

- Developed a custom computer vision system in Python and LabView to identify apples, calculate their distance and bearing, and then guide a custom multi-joint robot arm through the process of gripping and moving a load using inverse kinematics.
- Prototyped a pipe-crawling amphibious robot for the local City Council that was designed to investigate possible contaminant spread throughout the local stormwater system.
- Custom designed, drafted, and manufactured a Kinyon-style Pneumatic Power Hammer for the High-School I previously attended using recycled and donated materials to make Damascus steel.
- Researched the structure and geometry of a 3-Dimensional lattice of auxetic meta-materials using the SolidWorks simulation suite, with the aim to optimise it for impact protection.

## SKILLS

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