

Joseph C. Caswell

Whangārei, New Zealand

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Professional Summary

Highly skilled design automation specialist with 10+ years of experience in manufacturing, SOLIDWORKS, DriveWorks, and web development. Proven ability to streamline processes and deliver innovative solutions. Seeking to leverage expertise in the New Zealand tech industry to drive efficiency and automation initiatives.

Professional Experience

Technical Solutions Consultant

TPM | Greenville, SC, USA / Whangārei, NZ (Remote) | October 2021 – Present

Full-time until April 2025; currently part-time independent contractor (remote) due to relocation

- Led DriveWorks implementations and provided expert SOLIDWORKS support for manufacturing clients, automating design and documentation processes
- Developed and deployed custom Integration Theme website templates and SOPs, improving client website consistency
- Created DriveWorks plugins for icon integration and unit conversion, enhancing user interface customization
- Pioneered use of Figma for rapid prototyping and established an internal knowledge wiki, streamlining development workflows
- Delivered training, technical support, and presented UX Design Process at DriveWorks World 2024

Tool Designer

Kearfott Corporation | Black Mountain, NC, USA | March 2021 – October 2021

- Designed and developed precision tooling for military guidance systems, collaborating with CNC programmers for cost-efficient manufacturing
- Created measurement tools for high-precision assembly processes

Mechanical Tool Designer

Auria Solutions | Old Fort, NC, USA | October 2017 – March 2021

- Spearheaded process optimization initiatives, including additive manufacturing integration and custom automation solutions
- Developed SOLIDWORKS and Excel macros/templates, reducing design time and improving efficiency
- Contributed to a Kanban process improvement project generating \$2M+ in annual savings (\$100K/year personal contribution)
- Designed and developed internal software training website

Teaching Assistant

University of North Carolina Asheville | Asheville, NC, USA | October 2015 - April 2017

- Assisted in Mechatronics and SOLIDWORKS courses, providing lab instruction and technical support
- Mentored students in robot design and programming using SOLIDWORKS and Arduino

Skills

- **CAD/Automation:** DriveWorks, SOLIDWORKS

- **Web/Programming:** HTML, CSS, JavaScript, TypeScript, Markdown, PHP, JSON, XML, VB/VBA, C/C++/Arduino
- **Tools:** Figma, GitHub, Wiki.js, DokuWiki, CPanel, VS Code, Microsoft 365, Google Drive, GIMP
- **Soft Skills:** Project Management, Technical Support & Training, UI/UX Design, STEM Education & Mentoring

Certifications

- **SOLIDWORKS:** Certified Expert (CSWE), Professional (CSWP) with specialties in Simulation, Visualize, and Technical Support
- **DriveWorks:** Certified Professional, Solo, and Xpress Associate
- **Web Development:** W3Schools Certified in Node.js, PHP, TypeScript, JavaScript, HTML, CSS, and XML
- **Other:** Foundations of User Experience (UX) Design (Google/Coursera)

Education

- **Mechatronics Engineering** – UNC Asheville / North Carolina State University Joint Bachelor program (2015 – 2017)
- **Mechanical Engineering** – Wake Technical Community College Associate program (2012 – 2015)

Honors and Awards

- Eagle Scout (Boy Scouts of America) – September 2013

References

References available upon request.