

Curriculum Vitae

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Henry Jian Chen

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1 Professional Summary

I'm a UWA Electrical Engineering and Management Student with skills in machine learning, web development & IT management and mechatronic design. I currently work at UWA Motorsports and Engineers Without Borders as an Electrical Engineer and Altronics as a Sales Assistant. I was previously involved with Noisy Guts as a data scientist and automation engineer

2 Technical Skills

2.1 Embedded Systems, Automation and Electronics Engineering

- Primarily working with STM32 and Arduino Microcontrollers on UWA Motorsports – Interfacing with the rest of the car using CAN Bus
- Experience with IoT and remote monitoring – built a camera stabilizer that streamed its control variables to a simulated webserver and displayed it on a real-time frontend
- Currently leading a team of five to create a remote monitoring module for Engineers Without Borders – creating the electronics and software that can be attached to existing solutions help assess its feasibility and performance.
- Breaking down and documenting client requirements and translating them into design tasks
- Altium, KiCAD, Solidworks and Fusion 360 Experience for PCB and Hardware Design

2.2 Machine Learning

- Worked with Python for four years – cleaning raw data, finding features and building models for classification and regression and natural language processing

- Engineered features from a sparse dataset and applied the abstracted signal to successfully find relationships with other parts of our dataset in the Noisy Guts Project
- Applied data-cleaning and data visualization techniques for dataset feasibility testing

2.3 Full stack web development & IT Management

- Worked with technologies including Flutter, React, Express, Socket.IO and Docker for three years – building full stack web and mobile apps.
- Prototyped a data-collection application for The Noisy Guts Project – applying UX/UI design principles, implementing a Realtime backend & iterating upon the app based on user feedback
- Built, Deployed and Managed UWA's University Engineers' Club's website using Docker, NodeJS and MongoDB – implementing a full stack solution that handles role-based authentication, server-side rendering and content management. <https://uec.org.au>

3 Work Experience