Jesse Wood

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Personal Statement

Third-year engineering student majoring in Software. Finding an opportunity to apply and expand my knowledge. Highly motivated and ready learn new things, with experience in the service industry and a passion for all things tech.

Professional Experience

2020-today	Volunteer at Niwa
	My work experience involved developing a geographic information system (GIS).
	This used the Mapserver framework to create a web map service (WMS) to render
	data stored on a postgis database.
2018 – 2019	Bartender at St. Johns Bar and Eatery
	I furthered my communication skills from serving the up market clientele. This
	included supervising functions for ministers of parliament and their cabinets. We
	regularly hosted the staff for Xero and TradeMe.
2012 – 2018	Bartender at Mac's Brewery
	This was my first job. I started with no work experience, and steadily progressed
	through the company. I learnt valuable communication, event coordination and
	conflict resolution skills.

Education

2016-today	Victoria University of Wellington
	BE(Hons) Engineering
	Victoria Excellence Scholarship
	Project Management, Structured Methods, UX Design
2011 - 2015	Rongotai College
	NCEA Level 1 - 3 Exellence
	Scholarship English, Schools Canoe Polo
	Prefect, UN Youth Ambassador, Debating, Rockquest, Jazz Band, Production
	Band

References

Mac's	Troy Savage
	General Manager \cdot tsavage.nz@gmail.com \cdot 0220647129
Mac's	Tom Moorhead
	Functions Coordinator \cdot tom@sscatering.co.nz \cdot 0211395980
Mac's	Will Sargent
	General Manager \cdot awsargent@hotmail.com \cdot 0210606647

Projects

Map Service

GIS, Shapefile, Postgis, Mapserver, Leaflet

This project is an implementation of a web application that uses a web map service (WMS). The WMS provides a service to query a Postgis (psql extension) database. Currently it uses Apache2 to provide the service over the localhost.

Portfolio

React, Firebase, Markdown

The content for each of the static pages is written in markdown. Then the react-markdown package converts it into html. The dynamically generated content is retrieved from a Firebase database. The authentication for the website is provided through Firebase as well.

SCARA

Direct/Inverse Kinematics, Java, SVG Parser

The Selective Compliance Assembly Robot Arm (SCARA) was a drawing tool that could be programmed to draw an SVG image. The machine consisted of two articulated joints, connected to a pen. Direct and inverse kinematics are used to calculate the voltage required to move the arms into the desired position. The firmware for the arm was written using Java. Additionally, there was a simulation of the arm, such that the functionality could be tested remotely.

IZack

Java, MVC, API, VCS

This was a subaquatic rouge-like dungeon crawler. It started as a clone of the Binding of Izaac. It was written using Java swing UI. The program consisted of libarires which were used in together to form an MVC model. It was a group project, that relied on the Gitlab's VCS.

AVC

C++, SHH, RasPi, PID, AV

The Autonomous Vehicle challenge. This involved creating a self-driving vehicle to complete a variety of tasks. The vehicle was controlled using a microcontroller with firmware written in C++. The tasks included; opening a gate via SSH, staying in the middle of a path and navigating a maze.

Core Skills

Interaction
Team Work
Conflict

Conf

Time Ability to work under pressure and to a deadline.

Technical Skills

Langauges
Databases
Frameworks
Processing
Tools
VCS
Bash, C, C++, Haskell, Java, Javascript, Typescript, Mapserver, Python, Ruby
Firebase, Postgres, Postgis
Angular, React, Vue
LaTeX, Markdown, Vim
Adobe Photoshop, Adobe XD, Blender, Figma, PlantUML, Pyplot, QGIS
Git, Github, Gitlab

Interests

Sciences Computer Science, Artifial Intelligence, Robotics, Astrophysics, Psychology Classical, Jazz, Blues, Classic Rock PC, Emulators, Blizzard, Steam