

Daniel van der Spuy

SOFTWARE ENGINEERING STUDENT · FINAL YEAR

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Education

University of Auckland

Auckland, New Zealand

Bachelor of Engineering (Honours) - Software Engineering

2022 - Current

- Cumulative GPA: 8.85/9
- Extracurricular: Part 2 Engineering Tutoring, Software Engineering Students Association, Auckland University Engineering Society, Auckland University Fishing Association
- Relevant Courses:** Fundamentals of Database Systems, Object-Oriented Programming, Data Structures and Algorithms

Awards

- UoA Top Achievers Scholarship recipient (\$20,000)
- Deans Honours List in 2022, 2023 and 2024 (Top 5% of Cohort)
- First in class for EXERSCI100G (Exercise Science)
- First in class for SOFTENG281 (Object Oriented Programming) /item Overall winner for UoA Summer Research Poster Competition

Work Experience

Speech New Zealand

Remote

Junior Full Stack Developer

March 2023 - Current

- Developed and maintained a web application to digitize file management, exam scheduling, and report generation processes.
- Built and deployed key features such as scanned report uploads and automated qualification verification, enhancing staff productivity.
- Integrated the Xero API from scratch to automate invoice creation, reducing the time required by approximately 70% through self-directed learning and documentation analysis.
- Set up and managed production deployments, ensuring reliability and availability of the application.
- Technical Skills:** PHP (Laravel Framework), Blade, HTML, CSS, JS, SQL, XeroAPI

University of Auckland

UoA Robotics Lab

Summer Research Scholar

Nov 2024 - Feb 2025

- Used ML techniques, with a focus on reinforcement learning (RL), to explore self-driving capabilities of F1 tenth cars
- Trained RL model to successfully overtake cars in simulation, increasing overtaking success rates by over 45% when compared to previous models
- Minimised sim to reality gap with testing, allowing model deployment on real car
- Prepared a poster on research, which won the overall prize at the Summer Research Poster Day
- Co-authored academic paper on results found, paper currently awaiting review
- Technical Skills:** Python, ROS2, Reinforcement Learning, Academic writing

Projects

AI-Powered Escape Room

[Go to Repo](#)

Java, Java FX, CSS, OpenAi

- Collaborated in a team of 3 to create an escape room game
- Used OpenAi API to act as the "Gamemaster", giving users a life-like chat experience within the game
- Prevented GUI freezing and reduced response time by implementing multithreading and concurrency
- Further developed collaborative Git skills such as PR reviewing and merge conflict resolution.

Dart Scoring Application

[Go to Repo](#)

JavaScript, HTML, CSS

- Created a web app to score dart games
- Implemented speech-to-text API to streamline game scoring, reducing score input time by 75%
- Prevented GUI freezing and reduced response time by implementing multithreading and concurrency
- Further developed collaborative Git skills such as PR reviewing and merge conflict resolution.

Skills and Interests

Programming Java, PHP, JavaScript, React (learning), HTML/CSS, MATLAB, C

Interests Fishing and boating, Gym and Fitness, Gaming