Rohan Fowler-Harper

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An engineer at heart, I am excited by the ever-changing world of software development & technology and the opportunity it provides to solve complex problems and innovate. As a Software Developer and Lead Teacher at Dev Academy Aotearoa, I have dedicated the last year and half of my career to mentoring aspiring junior developers, providing them with skills they need to thrive as developers and problem solvers. With expertise in React, Node.js, TypeScript, RESTful APIs, SQL (PostgreSQL & SQLite), Docker, and a strong engineering background, I am eager to apply my technical, personal, and leadership skills in a full-time software engineering role.

RELEVANT EXPERIENCE

Dev Academy Aotearoa, Remote/Auckland, New Zealand — *Teacher/Developer* (React/Node.js/TypeScript)
JANUARY 2022 - PRESENT

Teaching full-stack software development, working with nine cohorts of approximately 20 students each over intensive 10 week cycles. Duties include delivering lecture content regularly, mentoring students one-on-one, leading teams of students in industry-like projects, building an internal suite of tools, as well as maintaining the course curriculum.

- Deliver lecture content on: React, Node.js/Express, RDBMS (Knex/SQL), TypeScript, unit/integration testing, TDD, OAuth 2.0
- Provide students with the required technical skills to step into junior developer roles with an 83% post-bootcamp employment rate in relevant industry positions
- Build, deploy, and maintain internal web applications, services and integrations to automate teaching processes (Trello, Discord, Slack, GitHub) using TypeScript, Node.js, Vue, React, and Docker
- Facilitate significant curriculum changes (e.g., TypeScript, React Query) and support staff in learning new technologies
- Lead team projects with 8-12 students as developers, leading stand-ups, facilitating PR reviews, enforcing code quality with CI/CD, and resolving interpersonal conflicts

Gallagher Group Ltd., Hamilton, New Zealand — *Student Electronics Engineer* (Arduino, NFC, Python 3)
NOVEMBER 2019 - MARCH 2021

Completed two summer self-led projects focussed on developing hardware + software solutions, writing comprehensive technical reports for each. This included completing my Honours Capstone project with Gallagher with the support of a Callaghan Innovation grant.

- Developed proof of concept designs for MIFARE NFC card reader optimisations relating to read-range performance and physical security improvements
- Assisted Engineers with day-to-day tasks throughout the year while at University
- Participated in a large product rework, resoldering thousands of SMT components
- Each project was self-managed and included: scheduling meetings with engineers and stakeholders, procuring required materials, setting deadlines and workload estimations, and documentation

SKILLS

- Highly technical
- Strong communicator
- Quick to grasp new concepts
- Strong mentorship

Tools I use daily:
TypeScript, React/Redux, Vue, Docker, WSL2, zsh, Vite, TailwindCSS

Currently excited by:
tRPC, unocss, @vanilla-extract, Astro, RSCs, Upstash, K8s, React Native/Expo

HOBBIES/INTEREST

As an avid Formula 1 fan, you can find me in front of the TV at 6am on Monday mornings donning a Ferrari cap.

I share my home with my partner and a family of three cats, who often join me in zoom meetings when they get the chance.

I also enjoy Sim Racing, the gym, and the Rubik's Cube.

REFERENCES

References available upon request

Waikato University, Hamilton, New Zealand — *International Students Tutor, Engineering*
JANUARY 2019 - DECEMBER 2020

Taekidokai Martial Arts, Hamilton, New Zealand — *Instructor*
JULY 2016 - NOVEMBER 2020

EDUCATION

Dev Academy Aotearoa, Auckland, New Zealand/Remote — *Certificate in Applied Software Development*
AUGUST 2021 - DECEMBER 2021

University of Waikato, Hamilton, New Zealand — *Bachelor of Engineering (Hons) - majoring in Electronics*
FEBRUARY 2017 - DECEMBER 2020

PROJECTS

Pixels (Next, TypeScript, Redux, ChakraUI)
DEMO | CODE | DOCKER IMAGE

A tiny paint-by-numbers application that allows users to draw, erase, change colours, and use Nyan Cat as a base drawing with a matching palette. Originally created in 2021, refactored with TypeScript & Redux Toolkit in early 2023.

Parrot (Node.js, TypeScript, GitHub Actions)
CODE

A CLI tool and GitHub Actions CRON job to rapidly compare 100s of GitHub branches to each other in seconds. Used as a tool to identify potential plagiarism and notify Discord and Slack channels weekly. Parrot has been used to identify several cases of plagiarism at Dev Academy that would have otherwise gone unnoticed.

Ridley (Node.js, TypeScript, Docker)
CODE

A Discord bot that tracks help requests in Discord and automatically notifies extra staff members if the teaching team is at capacity. Deployed as a containerised web worker on a self-hosted Dokku platform. Ridley is used daily to help staff manage workload while still being available for students when necessary.

Advent of Code (Deno, TypeScript)
CODE

Advent of Code is an advent calendar for programming challenges. It is something I thoroughly enjoyed doing with my spare time last Christmas season, and I look forward to AoC 2023.

Honours Capstone Project (NFC, Arduino, SMT components)
Thesis and work product is under a non-disclosure agreement.

Project involved improving the performance of NFC card readers using variable capacitors to tune antenna resonance.