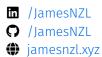
# James Bao

james@jamesnzl.xyz+64 22 410 1580Auckland, New Zealand



## **©** Career Objective

I am chasing an internship to grow my love for everything from analogue electronics to full-stack web development.

I want to improve human lives—whether through hardware, software, or a beautiful combination of both.

I am always looking to learn new things and grow as a person—and I apply this mindset to everything I do.

## **☆ Skills Summary**

#### **Problem Solving**

> I apply my strong logical thinking to challenging situations, and leave things better than I found them.

#### **Communication Skills**

> I am an effective communicator with an aptitude for breaking down challenging concepts.

#### Leadership

> I am passionate about intent-based leadership and understanding each member's strengths and weaknesses.

#### **Teamwork**

> I strive to be an asset to any team. I am known for my reliability—I do not make promises I cannot keep.

## **Education**

## **Bachelor of Engineering (Honours)**

2021 - 2024

The University of Auckland

> Specialising in **Computer Systems** Engineering

> Cumulative GPA of 8.2/9.0 (A)

## **Experience**

Course Cadet StaffJul 2021New Zealand Cadet ForcesAuckland, NZ

- > Selected to staff the Northern Area Junior Non-Commissioned Officer's Course 04/21
- ➤ A mentor and **role model** to the course of 50+ students
- > Aided Directing Staff in **training delivery**, student assessment, and welfare management
- > Maintained **morale** and esprit de corps
- Applied my instructional technique and leadership skills to deliver a 'very efficient Final Parade'

#### **Freelance Software Developer**

2020 - 2021

- > Back-end development with JavaScript, Node.js, and MongoDB
- Built a custom Discord bot tailored to streamline digital order management and processing

## Technical Skills

#### **Electronics and Embedded Systems**

- > Analogue circuit & PCB design learnt through practical application
- Extensive hands-on experience with soldering and using multimeters & oscilloscopes
- > Familiarity with **LTspice**, Microchip Studio, Proteus VSM, and EasyEDA
- > Experience writing firmware for Arduino and ATmega328PB Xplained Mini

## TypeScript/JavaScript

- > Front-end **browser** and back-end **Node.js** applications
- > Object-oriented and functional patterns
- **> async/await**, Promises, and callbacks
- > Serverless functions with Next.js and Cloudflare Workers

## Git/GitHub

- ➤ Usage of **feature branches**, pull requests, issues, and GitHub Actions
- > 3000+ contributions accrued over the past 4 years

Other Languages I am also familiar with C/C++, and have limited experience in Python, Java, and MATLAB.

## notion-assignment-import

jamesnzl.xyz/notion-assignment-import

- > Cross-browser extension that loads Canvas assignments into a Notion database
- > 60+ users in under two months
- ➤ Learnt more about APIs, HTTP and HTTP clients, and OAuth2

Git and GitHub

▶ Sass and PostCSS

▶ Insomnia

▶ TypeScript, HTML

▶ Gulp, Browserify, and ESBuild

**Smart Energy Monitor** *uoa-ece209.github.io* 

The University of Auckland

> Smart energy monitor I am currently designing in a group of four

➤ Involves analogue circuit & PCB design, signal conditioning, using an ATmega328PB, writing firmware drivers, serial communication, and Bluetooth communication

▶ Git and GitHub

▶ Microchip Studio

Altium Designer

▶ LTspice

Proteus VSM

**Pronto** 2020 – 2021

aucklandarmycadets.github.io/Pronto

- > Full-featured Discord bot to **streamline** Unit **procedures**
- ➤ Comprehensive codebase documentation with JSDoc
- > Experimenting with Cloud Computing services including DigitalOcean, Linode, Vultr, and currently Oracle Cloud

▶ JavaScript, Node.js

▶ ISDoc

▶ SSH, Bash, Unix CLI

▶ MongoDB

▶ Virtual Private Servers

Unit Website 2022

github.com/aucklandarmycadets/aucklandarmycadets

City of Auckland Cadet Unit

City of Auckland Cadet Unit

- ➤ A **modern, performant website** to overhaul my Cadet Unit's online presence
- > Created my own CDN to cache Notion's ephemeral images and optimise performance
- ▶ Next.js (and React) with Vercel
- Serverless functions
- DNS Records, SEO

**Other Projects** More projects can be found on my **GitHub profile**.

## **P** Achievements

- > First in Course Award for ENGGEN 131: Introduction to Engineering Computation and Software Development
- > Bayonet of Honour

School Prefect and Deputy House Captain

> Cadet Warrant Officer Class Two

> First in Level 3 Calculus

> Top of Course Award

- First in Level 2 Physics
- NZCF Senior Non-Commissioned Officer's Course
- First in Level 2 Programming

#### **9** Interests

**Outdoors** I have a deep love for the outdoors, and find it an amazing outlet to recharge my batteries.

**Teaching** I love crafting intuitive explanations for difficult, technical concepts—and seeing the lightbulb moment.

**Te Ao Māori** I care deeply about engaging with the indigenous culture & language of Aotearoa New Zealand.

**Youth Development** I am currently an Officer Cadet in the New Zealand Cadet Forces. I was previously a cadet for 5 years, including 17 months as a Cadet Warrant Officer Class Two.

# **A** References

#### **Captain James Green, NZCF**

Cadet Unit Commander

james.green@cadetforces.org.nz or +64 21 101 8020

City of Auckland Cadet Unit

James has been a **significant mentor**, and has heavily **guided** my growth as a person.

Rebecca O'Gram Associate Principal

rog@westlake.school.nz

Westlake Boys' High School

Rebecca was my Year 13 Calculus **teacher**, and is one of the **most influential** teachers I have ever had.

#### Matua Johnny Waititi

Te Kaihautū o Te Puna

jwa@westlake.school.nz or +64 20 410 53400

Westlake Boys' High School

Matua Johnny was my Te Reo Māori kaiako and form teacher, and has also played a pivotal role in my life.

2022

2022