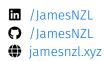
# **James Bao**

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 +64 22 410 1580
 Auckland, New Zealand



## **©** Career Objective

I am chasing an internship to grow my love for analogue electronics and embedded systems.

I want to improve human lives—whether through software, hardware, 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

#### C/C++

- > Familiarity with **Arduino**-flavoured C++ and standard C
- ➤ Learnt through **projects** in high school and University Engineering courses
- > Currently using C to develop **firmware drivers** for an **ATmega328PB**
- Used Arduino C++ for simple sensor reading and peripheral control functionality

#### Git/GitHub

- > Git version/source control and GitHub project management
- > Usage of **feature branches**, pull requests, issues, and GitHub Actions
- > 3000+ contributions accrued over the past 4 years

Other Languages I am also highly proficient in TypeScript/JavaScript, and have limited experience in Python, Java, and MATLAB.



Smart Energy Monitor 2022

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

#### **Automatic Peg Cleaner**

2020

jamesnzl.xyz/13cte Westlake Boys' High School

- > Self-directed Year 13 Control Technology project
- ➤ Learnt about **embedded systems**, MOSFETs, capacitors, diodes, **circuit and PCB design**, 3D modelling, 3D printing, and **firmware development** through **practical application**
- **>** Arduino

> AutoCAD

➤ EasyEDA

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



#### 2021

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

#### Pre-2021

- > Bayonet of Honour
- > Cadet Warrant Officer Class Two
- ➤ Top of Course Award NZCF Senior Non-Commissioned Officer's Course
- > School Prefect and Deputy House Captain
- > First in Level 3 Calculus
- ➤ First in Level 2 Physics
- > 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 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.



#### **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.