



Johniel Bocacao

 hello@johniel.nz

 [+64221570193](tel:+64221570193)

 johniel.nz

I consider myself a **design-oriented developer**, with a preference for working on the back end. **Data science and machine learning** excite me the most, being the intersection of my interests in mathematics, statistics, neurology, and telling stories with data.

My last internship stimulated my interest in data science and web development by creating R Shiny dashboards. My passion for working with others was also reinforced here, not only within my team but with non-developer scientists honing their coding skills.

Key Skills

PERSONAL

- ▶ Team leadership
- ▶ Dynamic participation in teams
- ▶ Presentations and debates
- ▶ Providing feedback
- ▶ Flexibility and adaptability
- ▶ Resilience and empathy
- ▶ Strict time management

TECHNICAL

- ▶ Work experience in R, Python
- ▶ Academic experience in Java, C/C++, Git
- ▶ Proficient in HTML, CSS
- ▶ Experience in JavaScript, jQuery, SQL, PHP



Experience

BUSINESS INTELLIGENCE INTERN

Institute of Environmental Science and Research, Porirua,
November 2019-February 2020. Specialising in data visualisation.

- ▶ Visualised business KPIs and leave entitlement using **Shiny**, an R library for web development. Reduced maintenance time from previous solution, Tableau.
- ▶ Created Shiny dashboard for environmental science team, extracting and visualising sensor data from NIWA servers.
- ▶ Supported and cooperated with non-developers in use of R, Python and sensor hardware in scientific projects.

ENGINEERING TUTOR

VUW Engineering Design (ENGR110), **July-October 2020**;
Engineering Technology (ENGR101), **February-June 2020.**

- ▶ Delivering tutorials for around 35 students at a time, learning C++, audio and image representation, compression and software development models and renewable energy.
- ▶ Providing constructive, detailed feedback for assignments on sound creation, shape detection, autonomous vehicle control, machine learning and finite state machines.
- ▶ Mediating team project disputes, such as dealing with members who fail to contribute.
- ▶ Hands-on involvement in the transition to work-from-home, providing documentation and live support for Mac users.
- ▶ Used initiative by delivering extra tutorials on Git and GitHub.



Education, Awards and Honours

VICTORIA UNIVERSITY, WELLINGTON

March 2019-present, expected graduation in November 2022.

Bachelor of Engineering with Honours in Software Engineering, specialising in Artificial Intelligence, **A+ GPA**. Awarded \$30,000 scholarship for outstanding achievement, Dean's List (2019).

Performed best in Algorithms and Data Structures (2nd year) from my interest in grasping theory before implementation; Engineering Technology and Design (1st year) from my interest in the integration of hardware and software, to the extent that I am confident tutoring them.

TAWA COLLEGE, WELLINGTON

2014-2018, NCEA Level 3 endorsed with Excellence. Awarded 4 different prizes, totalling \$4,000. Spoke at the Tawa Primary Schools' Citizenship Awards and Junior Prizegiving about the significance of community in my successes and what it takes to be a good citizen.

Community and Volunteering

STUDENT AMBASSADOR

Student Recruitment and Orientation, Victoria University of Wellington. January 2020-present.

- ▶ Showed empathy and leadership in supporting new engineering students transitioning to university life.
- ▶ Organised events and showed initiative to facilitate relationship building and familiarity with Wellington.
- ▶ Delivered student recruitment session at my alma mater, answering questions about my experience.

MUSIC AND THEATRE

- ▶ Acting as a vocal consultant for a church choir, communicating musical techniques to non-singers.
- ▶ Currently singing with the Wellington Youth Choir, and with community musical theatre groups.
- ▶ Chosen as school music co-leader in 2018, leading groups as small as 8, to as large as 150 in rehearsal.
- ▶ Played percussion for 2015 school production, successfully learning 24 new instruments in 6 weeks.

POLITICAL VOLUNTEERING AND DEBATING

- ▶ Campaigned in the Mana electorate for the 2020 election, phone banking and door-knocking.
- ▶ Communicated political ideas to interested individuals, persuading them based on their experiences.
- ▶ Showed resilience in accepting disinterest of other individuals.
- ▶ Competed in Senior Certificate division of Wellington Schools' Debating from 2016 to 2018.

YEARBOOK COMMITTEE EDITORSHIP

- ▶ Chosen as Tawa College's Yearbook Committee editor for the 2018 cycle of Tawahi.
- ▶ Hit the ground running with a design vision guided by minimalist principles, preview [available](#).
- ▶ Liaised with all school departments to integrate articles, art and photography from all walks of school life.
- ▶ Delivered within time and financial constraints, while working with the printing company to use novel techniques that make the yearbook stand out.

Projects

LEAVE ENTITLEMENT

- ▶ Dynamic web app created using Shiny, an R library, to visualise each employee's leave entitlement compared to the business' policy, and best/worse case scenarios.
- ▶ Responds to user interaction, with filters controlling collection date, business units and seniority.
- ▶ Wrangled data to normalise employees by how many days elapsed since their anniversary of employment.

SILHOUETTE

- ▶ Block puzzle game constructed using 2D graphics on Processing.
- ▶ The player builds a 3D structure out of boxes in such a way that it casts a shadow on two sides matching the given silhouettes (the solution) of the level.
- ▶ Created 30 levels, 10 for easy, medium and hard difficulties.

SUMMA

- ▶ Simple maths game for all ages created on Python when I was 16.
- ▶ Inspired by minimalist puzzles like sudoku, creating randomised boards every game.
- ▶ Intended to build something that a primary schooler can pick up and play, but can be challenging for older players with an adjustment in difficulty.

References

Available on request