# JACK BAI

DEV

# **TECHNOLOGIES**

Proficient in: HTML | CSS | R | R Markdown Python | LaTeX | Racket

Working Knowledge in: Bash | Git | C# | C React | Unity

# RELEVANT COURSEWORK

Data Structures and Algorithms Implemented robust solutions in C to assignment specifications

Introduction to Computer Science II

Developed strong programming
principles to implement elegant and
efficient solutions in Python

Applied Linear Models
Utilized R to optimize Multiple Linear
Regression Models

Computational Statistics
Used R Markdown to produce visually
professional reports

# HOBBIES AND INTERESTS

Collegiate E-sports Athlete at the University of Waterloo

Winner of Collegiate Star League for League of Legends (\$5000USD)

Executive Member of the UW Kendo Club

# CONTACT



/jack-bai-waterloo



/JackBai2000



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### **EXPERIENCE**

#### **DVF SOFTWARE ENGINEER**

Dematic Virtual Systems | Sep 2021 - Dec 2021

- Lead performance analysis with 95% effective results using AWS EC2 instances to encourage integration of cloud computing to minimize production costs for future development
- Refactored testing framework to include Data Driven principles for efficient adaptability and cleaner code management
- Designed unified machine language diagrams to illustrate complex communication between objects

## **INSTRUCTIONAL SUPPORT ASSISTANT (CS 116)**

University of Waterloo | Jan 2021 - April 2021

- Helped students conceptually understand high-level data structures through 110+ hours of individualized instruction
- Sharpened Python knowledge by integrating student code to reach unique solutions
- Promoted fluid teamwork and collaboration through initiating dialogues between colleagues and professors for course consistency

# **INSTRUCTIONAL SUPPORT ASSISTANT (CS 136)**

University of Waterloo | May 2020 - Aug 2020

- Used Bash scripts to automate testing assignments and course knowledge through a SSH connection
- Quickly adapted to an online environment, providing one-on-one support to dozens of students weekly through Microsoft Teams
- Showed exemplary interpersonal and presentation skills, receiving a perfect grade from anonymous feedback polls by students

#### **PROJECTS**

#### JACKBAI.CA

HTML | CSS | JavaScript | React | Git

- Ongoing and frequently updated website about personal hobbies, interests, and projects
- Done to apply learnings from a Udemy course on React

## **PENGUIN TROUBLE**

Unity | C# | Git

- Created a 2D game using Unity with C# scripts to explore the domain of game development
- Used OOP principles for maintainable and modular code

#### TFT TRACKER

HTML | CSS | JavaScript

 Created an interactive website with a custom domain to apply academic HTML, CSS, and JavaScript skills

#### **EDUCATION**

#### CANDIDATE FOR HONOURS MATHEMATICS. STATISTICS

University of Waterloo | 2018 - 2023