

Raymond Zhang

(613) 890-1718 | Email | LinkedIn | Github

EDUCATION

Bachelor of Arts, Computer Science

University of British Columbia, Vancouver, BC

Expected Grad: May 2027

Current GPA: 3.95

EXPERIENCE

CChan Project — Stock Price Analysis

July 2024 – Present

Ontario, Ottawa

Python, CChan Framework, Pandas, Matplotlib

- Collaborated with two PhD researchers to develop an open-source CChan framework for advanced stock price analysis, supporting morphological and dynamic trading signals.
- Optimized settings like `bi_strict`, `divergence_rate`, and `zs_algo`, resulting in a **25%** improvement in market trend accuracy and actionable insights.
- Implemented visualization features including MACD and trend line plotting, enhancing data clarity and user interaction.

Game Animator

May 2022 – Sep 2023

Adventure Piece (Roblox), Remote

- Engineered advanced fighting style animations using Lua scripting in Roblox Studio, significantly enhancing combat mechanics for Adventure Piece, a game with more than **2.2 million** player visits.
- Collaborated with a cross-functional team of developers and artists to seamlessly integrate animations, resulting in a **25%** increase in player engagement and positive game reviews.
- Optimized animation performance through rigorous A/B testing and iterative refinements, achieving a **30%** reduction in lag and delivering an immersive and responsive gaming experience.

TECHNICAL PROJECTS

ImageHub - React, Node.js, Express.js, MongoDB

- Developed a full-stack web application for sharing images online using REST APIs with React for the front-end, creating custom hooks for state management between authorized and unauthorized modes.
- Implemented the backend using Node.js and Express.js to handle user authentication, image upload, and API request processing.
- Designed and integrated a MongoDB database for efficient data storage and retrieval, ensuring reliable performance and scalability.

UniBudget - React, Vite, JavaScript, Local Storage, React Router DOM

- Developed a budget management application using React and Vite, allowing users to create, manage, and delete accounts, budgets, and expenses with a user-friendly interface.
- Implemented data persistence using local storage, ensuring all user data is securely stored and accessible across sessions.
- Integrated React Router DOM for seamless navigation across different sections of the application, enhancing the user experience.

Advanced Breast Cancer Prediction Model - Python, Scikit-learn, SMOTE, Jupyter

- Developed a machine learning pipeline for breast cancer prediction using the Scikit-learn breast cancer dataset, focusing on data exploration, preprocessing, and feature selection.
- Addressed class imbalance using SMOTE, and trained multiple models including Logistic Regression, Random Forest, and SVM to identify the best performing model.
- Conducted a thorough model comparison and evaluation, documenting findings and ensuring reproducibility in a Jupyter notebook.

TECHNICAL SKILLS

Languages/Frameworks: HTML, CSS, Python, C++, C#, JavaScript, Typescript, React, Java, Lua, Racket

Developer Tools: Ubuntu, Platform.io, Bazel, Git, Unity, Firebase, Roblox Studio, Node.js, Express.js, MongoDB

Design Programs: Inventor, Fusion 360, TinkerCAD, Ultimaker Cura, Fritzing