

# Raul Sebastian Gomero Calizaya

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## Technical Skills

- Python, C++, C, & JavaScript
- Software development: HTML, CSS, NodeJS
- AI engineering
- Assembly & MATLAB
- Game Development: C# & Java
- Balsamiq and Figma

## Technical Projects

### Technologies Used

Figma & Balsamiq

- UI Interface Design**  
User Interface Design (CMPT 363 at SFU)
- Jan – Mar 2024
- Designed a user-focused interface for a student event planning app using Balsamiq for initial wireframes and Figma for high-fidelity prototyping.
  - Conducted comprehensive user interviews and market research to inform the design process, allowing for the integration of features tailored to the unique scheduling needs of students.
  - Implemented a user-centered design approach to create a functional app.

### Technologies Used

Linux, C, Makefile, POSIX Thread

- Communication Software in Linux**  
Operating Systems (CMPT 300 at SFU)
- Sep – Dec 2023
- Programmed a communication software on Linux with C, and using Makefiles to automate compilation.
  - Integrated advanced thread programming to handle multiple communication sessions simultaneously.

### Technologies Used

MongoDB, Node.js, Docker, HTML, CSS, Typescript

- Front-end and Back-end Project**  
Server-Side Development (CMPT 372 at SFU)
- May – Aug 2023
- Implemented Docker to containerize the application, ensuring consistent deployment across different environments and simplifying the setup process for developers and in production.
  - Incorporated MongoDB to serve as a backend Database.
  - Utilized Node.js for webpage architecture.
  - Programmed in HTML, CSS and Typescript to design a responsive webpage interface.

### Technologies Used

TensorFlow, Python

- Machine Learning: Image and Data Analysis**  
Biomedical Computing (CMPT 340 at SFU)
- Jan – Apr 2023
- Utilized TensorFlow, a leading open-source machine learning framework, to develop a sophisticated deep learning model capable of analyzing 500 distinct dog images.
  - Trained models to correlate specific visual cues with VHS scores, aiding in early detection and prevention strategies for canine heart conditions.
  - Implemented image resizing, normalization and augmentation for the model to be trained on a diverse dataset.

## Personal Project

### Technologies Used

TensorFlow, Python, Keras, NumPyseq2seq models, Twitter Database

- Generative Chatbot**
- Jan – Mar 2024
- Developed an open-domain generative chatbot utilizing seq2seq models, trained on a dataset of Twitter conversations on various topics to simulate real dialogues.
  - Programmed the chatbot using Python, TensorFlow, Keras, and NumPy, ensuring seamless integration and high performance.
  - Continuously refined the chatbot through iterative training and feedback, significantly improving its conversational accuracy and user engagement.

## Education

- Bachelor of Applied Sciences in Computing Science**
- May 2020 – Ongoing
- Simon Fraser University, Burnaby BC

## Interests

- Gym
- Music
- Volleyball