

Rosan Tommy Sandanasamy

825-461-4163 | rosan@ualberta.ca | linkedin.com/in/tommy-sand/ | github.com/Tommy-sand

EDUCATION

University of Alberta

September 2020 – August 2024

Bachelor of Science in Computing Science, Specialization in Software Practice

Edmonton, Alberta

- Relevant Coursework: Introduction to Software Engineering, Operating Systems, GPU Programming, Computer Organization and Architecture, Introduction to Databases

Cumulative GPA: 3.83

TECHNICAL SKILLS

Languages: Python, C, C++, Java, Cuda C, MatLab, Javascript

Developer Tools: Linux, Git, Github

Frameworks/Libraries: Android SDK, PyMongo, Pthreads, Beautiful Soup, SDL2, PyGame

Databases: SQLite, MongoDB, FireBase

WORK EXPERIENCE

Teaching Assistant

January 2023 – Present

University of Alberta

Edmonton, Alberta

- Teaching assistant for CMPUT201 - Practical Programming Methodology
- Helped student's understand of C and Linux concepts
- Evaluated student's assignments, labs and knowledge of C and Linux concepts

Cashier

March 2021 – Present

Real Canadian Superstore

Edmonton, Alberta

PROJECTS

JPEG Decoder | C++

August 2022 – Present

- Developed a JPEG decoder capable of decoding most JPEG images. Implemented the decompression algorithm according to the JPEG specification purely using C++.
- Created an image viewer using OpenGL to display decoded JPEG.

Well Fed | Java, Android SDK, Firebase

September 2022 – December 2022

- Worked in a group of 6 to create an Android app that allows users to keep track of their recipes, meal plan, shopping list, and pantry.
- Contributed to planning, and the design of the app by organizing user stories as well as creating and improving the app's UML diagrams.
- Integrated the FireBase database with the recipe storage portion of the app using FireBase transactions.
- Wrote unit tests and intent tests to thoroughly test the app and find bugs. Fixed multiple bugs in the app.

Registration Visualizer | Python, Django, PyMongo, MongoDB

March 2022 – August 2022

- Constructed a website to visualize the change in course registration for Computing Science courses on a day to day basis.
- Used Beautiful soup to parse UAlberta's enrollment information and updated the MongoDB database with new registration information.
- Created a website with Django to allow people to view how enrollment changed for each course on a day to day basis.

EEG to Soundscape | Python, OpenMNE, Flask RESTful

March 2022 – March 2022

- Developed for NeurAlbertaTech's NatHack hackathon, competed in a group of 3
- A website that users could submit their brain wave data to and in return would receive a soundboard which is tuned to the users brain waves.
- Designed a back end to process the brain wave data and create values that would update the soundscape.
- Created a simple REST API to transmit the processed brain wave data from the server back to the user.

Game Of Life | C, SDL2

July 2022 – Present

- Implemented Conway's Game of Life from scratch in C using SDL2 to display to the screen.