Ronney Lok (he/him)

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Technical Skills

- Languages: Python, C/C++, Java, HTML/CSS, Javascript, SQL, Dart
- Frameworks: Flutter, ReactJS, ExpressJS, Flask, AWS
- Databases: MongoDB, SQLite
- Tools: Beautiful Soup, Selenium, Twilio, Bootstrap, Tailwind, ArcGIS, Matlab

Work Experience

Diastolic Robotics Inc.   **Vancouver, BC**
Software Developer Intern   *Jan – Apr 2023*

- Architected and developed a sleep apnea screener iOS/Android app through the Flutter SDK with a reach of over 300 users.
- Prototyped a NMB drug monitoring and administration application for anesthesiologists to use in the surgery room. Created with HTML, CSS, and Javascript.
- Programmed mobile interfaces to manage communication between Arduino boards to smartphones via Bluetooth Low Energy.
- Developed algorithms to clean and preprocess raw sensor data from medical devices resulting in a 30% reduction in noise and improved reading accuracy.
- Implemented the Runge Kutta algorithm in Dart to approximate data from sensors and applied them strategically to medical device applications.
- Authored testing and analysis research reports involving 50+ test cases ensuring comprehensive coverage and alignment with project goals.

Project Experiences

AWS Serverless Image Processor   *Jul - Sep 2023*
Python, AWS, ReactJS, Chakra UI

- Developed an AWS serverless image-editing web application that allows users to alter images.
- Utilized AWS services including API Gateway, Lambda, S3, and Cloudfront for APIs + hosting.
- Created implementations such as inverting, rotating, brightness, filters, pixelation, and binarizing via Numpy.

Maze Game   *Jan - May 2023*
Java, Maven, JUnit

- Developed a 2D Java maze escape game where users can control movement and abilities via keyboard inputs.
- Designed in accordance with OOP and the factory design pattern resulting in more than 60% in code reusability.
- Achieved 90% code coverage with JUnit tests, ensuring robust testing of underlying code structures.

Hospital Bot   *May - Jun 2022*
Python, Flask, Twilio, Beautiful Soup, Selenium

- Created a texting chat bot that responds with the closest available hospitals and wait times.
- Used Selenium and BeautifulSoup to extract the required information from the hospital wait time website.
- Combined Twilio with Flask, to handle backend communication with APIs and hospital data.

Education

Simon Fraser University   **Vancouver, BC**
Bachelor of Science, Major in Computing Science & Minor in Mathematics   *Sep 2020 - Present*

- Dean's Honour Roll
- Relevant Courses: CMPT 276 (Introduction to Software Engineering), CMPT 354 (Database Systems I), CMPT 295 (Introduction to Computer Systems), CMPT 225 (Data Structures and Algorithms)