Rizwan Kassamali

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Skills

- **Java** – Multi-year experience with object-oriented programming, data structures, Java AWT and Java Swing
- **Python** – Knowledge with file management, database connections with SQL and Tkinter GUI
- **C++** - Over a year of knowledge through university courses, enhanced by personal interest and design team
- **HTML, CSS & JavaScript** – Self taught via the development of a website, used Angular framework, and upload to GitHub via Git terminal
- **VHDL** – 3 months of practical involvement programming various programs with an FPGA
- **Circuit design and soldering** – constructed various circuits with breadboards using logic gates then transferred and soldered the circuits to PCBs

Experience

Software Developer – Canadian Solar Inc.
Jan 2021 – Apr 2021

- Designed custom Python scripts, to calculate the energy lost and expected energy at each solar panel site and send emails to correct recipients based on output logs.
- Planned and implemented the change to Apache Airflow, set up PostgreSQL database and created custom DAGs for all scheduled scripts.
- Worked on internal client front end using SCSS/HTML/JS with the Angular Framework

Loblaw Companies Ltd.
May 2020 – Aug 2020

- Created Python scripts to check the number of live stores and ensure files are sent in the correct order
- Managed and updated servers and gateways using SQL
- Integrated SQL queries into Python to mass unassign all broken tags from their respective server

Waterloo Aqua Drone Design Team
Aug 2020 - Present

- Used Python and C++ to update the aqua drone sensors, stability control and thrusters
- Worked on both software and electrical teams to ensure that all software works correctly and efficiently

Projects

Encryptions
May 2019, Nov 2019

- Designed 2 different message encryption programs, in Java and C++
- Encryption in Java uses a randomizer, conversion to hex, Caesar ciphers and concatenating ASCII values
- C++ based encryption uses a key given by the user to randomize the characters, then applied ASCII Armour
- Created decryptions for both programs that gave back the original phrase

Tasks App
May 2020 – Present

- Created a Python app where users can track upcoming tasks, sort by name or date and filter tasks
- Designed an interactive graphic user inference using the Tkinter library

Bank Program
Apr 2018 – Jun 2018

- Created a Java program where user can track the amount of money in their bank account
- Kept a history of the user's transactions and allowed for multiple users

Education

Candidate for B.A.Sc. in Computer Engineering – University of Waterloo
Sep 2019 – Present

- Relevant Courses: Algorithms and Data Structures (ece250) / Systems Programming and Concurrency (ece252)
- Dean's List and Excellent Standing (80+ average) for 2A School Term

Interests - Technology | Autonomous Vehicles | Space Exploration | Hockey | Music