

Rishi Shah

Software Developer

☎ 416-995-6279

✉ rishi.shah@uwaterloo.ca

in [/rishishah2001](#)

🐙 [/rishi-shah12](#)

🌐 [rishishah.ca](#)

⚙️ Technical Skills Summary

Languages: Python, C++, Java, JavaScript, PostgreSQL, R, HTML/CSS, bash

Frameworks: Django, Flask, React, Node.JS

Tools/Libraries: Git, JIRA, Docker, Jenkins, Linux/MacOS CL, Pandas, numPy, Matplotlib, SciKitLearn

💻 Experience

Bioinformatics Developer

Aug. 2020 to Dec. 2020

Ontario Institute for Cancer Research

Toronto, CA

- Updated and integrated a REST API in node.js to mark files for data release approval in the pipeline, increasing volume and efficiency 300%
- Created a COVID-19 workflow to analyze sequenced data while creating a json metrics file, graphs, charts and a pdf report in Python. Reduced time-to-completion by 5 hours
- Designed and produced various Python, R and bash programs to upgrade and re-implement proprietary legacy code, leading to operation times cut by 50% and a 25% reduced codebase
- Worked with AGILE, created documentation, reports/tickets in JIRA, Jenkins tests and deployed 7 projects

Bioinformatics Programmer

Jan. 2020 to Apr. 2020

Ontario Institute for Cancer Research

Toronto, CA

- Integrated various programs and software together to run in a workflow using wdl, helping increase the speed of the pipeline by 70%
- Installed software in docker containers so collaborators around the world can replicate cancer research
- Created and modified R, Python and Bash scripts to create metrics data from cancer data files. Reported data to 4 new dashboards and increased the rate of analysis by 50%

🔧 Projects

Cryptobase

Python, Flask, CRUD db, sqlite3

- Created a website to store user's cryptocurrency portfolios with a full user signup, login and verification system using sqlite3 relational databases
- Used Flask for the backend API for interfacing with the front end through GET, POST and DELETE methods
- Integrated a full jinja2 user interface using HTML, CSS and JS

Mood to Song

Python, Pandas, Image Processing, sqlite3

- Implementing the Spotify API for getting track suggestions and metadata based on the mood of the user
- Leveraged image processing to get the 5 most common colours in the album art and display them with the results

Purchase Analyzer

Python, Pandas, Numpy, SciKitLearn, sqlite3, Matplotlib

- A Python program that analyzes credit card purchases and stores data in a sqlite3 db using a pandas dataframe
- Uses a natural language processing engine to determine which category the purchase falls into by web-scraping the description of the merchant

COVID-19 API & Visualizer

Flask, Python, Pandas, sqlite3, Matplotlib

- Web-scraping csv files from the government websites and storing them in a database
- Using flask to create an API which reports back 16 data-fields and can be constrained by date

🎓 Education

University of Waterloo

BaSc in Honours Computer Engineering, Coop

2019 – 2024

Waterloo, CA

- Term GPA: 3.9