GORDON HAMILTON

✉ gordon.hamilton1110@gmail.com 🌐 gordon-hamilton.com 📞 289-946-3359 **in** gordon-c-hamilton ⓞ gord02

SUMMARY

· Computer Science student with a keen interest in Software Development and Astrophysics
· Experience in Tooling, Backend and Frontend Web Development through various internships

EDUCATION

York University   Sept. 2021 - May 2024
Bachelor of Science, Honours BSc Computer Science
Lassonde School of Engineering

EXPERIENCE

University of Toronto | Dunlap Institute, *Software Engineering Intern*, Toronto, Ontario   May 2021 - Aug. 2021
CHIME/FRB Zooniverse Development Team
· Worked cross-functionally with researchers from University of Oxford and University of Toronto to design and implement a new backend server to process citizen scientist Fast Radio Bursts (FRB) classification data
· Developed automated services to periodically transmit data as well as perform data cleanups and validations
· Refactored and tested existing backend API and database code to work with data classification processing tool
Tools/Technologies: Python, MongoDB, Sanic, Poetry, Maestro, Docker, Postman, Git

Pypeline, *Open Source Developer*, Toronto, Ontario   May 2021 - Aug. 2021
· Pypeline is an open sourced python project hosted on PyPI that has implementations and extensive documentation for various data structures and algorithms
· Updated documentation and testing for 10's of data structures for maintenance of the pypeline project
Tools/Technologies: Python, PyDoc, Bash, Git

Checkup Health, *Software Engineering Intern*, Toronto, Ontario   Mar. 2020 - Aug. 2020
Machine Learning Platform Team
· Checkup is a Forge backed company that provides a Mental Health platform for post-secondary institutions
· Developed Full-Stack internal tool to process and store customer experience tickets into a NoSQL database
· Assisted CTO in the implementation of a machine learning algorithm using BERT, achieving 91% accuracy, to classify customer experience tickets
· Developed Checkup's first public web application using Flask framework and hosted it on Heroku
Languages/Tools: Python, Javascript, Flask, NodeJS, Express, MongoDB, Mongoengine

PROJECTS

Covid Check-In   Aug. 2020 - Current
· Project created to help limit the number of people in a store by having users sign-in once they enter a store and to allowing other users to be aware of how many people are in the store at a time
· The Frontend of this application is built with React and authentication is handled via Firebase Auth
· The Backend for this project was created in Flask along with a Redis Caching Layer to reduce database read load by 50%
Languages/Tools: Python, Javascript, Flask, React, Firebase, Redis, MongoDB, Mongoose, StatsD

Image Repository   Dec. 2020 - Jan. 2021
- Image repository created using python language
- Application is accessed through a frontend web server. On the web server, users can view, sort, delete and add images to the site, all managed by the Flask server
- Redis caching layer greatly improves the speed at which images are retrieved from the backend. Retrieval from Redis proves to be faster than using the MongoDB database for both cache hits and misses.
Languages/Tools: Python, Redis, MongoDB, Flask, Jinja2, Conda Markdown, Git

ONLINE COURSES

· Algorithm Toolbox: University of California San Diego, Coursera, 2021
· Data Structures: University of California San Diego, Coursera, 2021
· Web Development Bootcamp: Udemy, 2019

SKILLS

PROGRAMMING LANGUAGES: C++, Python, JavaScript, HTML, CSS
WEB DEVELOPMENT: Flask, NodeJs, Redis, Sanic, React, Bootstrap, MongoDB, Firebase, Git
PACKAGE MANAGEMENT: Conda, NPM, Docker, Poetry