

# Ali Raza Zaidi

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## Education

### University of Waterloo

Bachelor of Computer Science

Cumulative GPA:

Waterloo, ON

09/2020 - 04/2025

92.7%

### Relevant Courses:

· Object-Oriented Programming (CS246)

98%

· Computer Organization and Design (CS251)

99%

## Skills

Ordered from greatest to least proficiency

**Languages:** Python · Bash · Javascript · C++ · HTML5 · CSS3 · C · Java · SQL · R · C#

**Tools:** Git · Linux · Docker · RESTful APIs · Flask · CI/CD · React · GraphQL · VMs · Bootstrap · BeautifulSoup

## Experience

### Software Engineer · BMO Capital Markets

Toronto, ON · 09/2022 - 12/2022

The capital markets arm of BMO, providing investment, management and advisory services to clients across North America.

- Optimized performance & UI/UX of live data leading to an 80% decrease in latency, using ReactJS.
- Improved DB loading processes to facilitate additional CSV file persistence in addition to lowering data loading times by 25%, using C#, Bash & PostgreSQL.
- Facilitated development of 5+ secrets-secure Gitlab DevOps pipelines for Python services such as Flask APIs & cron jobs, using Docker, Cron schedulers & Bash, leading to increased developer productivity across the team.
- Constructed a generalized banking web scraper worth \$500K annually, to parse 10,000+ financial product offerings from all major Canadian banks using OOP, Docker, Python, SQL & Gitlab CI/CD for use in competitive pricing schemes.
- Utilized clean documentation & coding standards such as Markdown, GitLab Issues & Python Static Typing to reduce maintenance downtime & ensure thorough knowledge transfer at the end of my term.

### Software Developer · UHN - CanDIG Project

Toronto, ON · 01/2022 - 04/2022

A Toronto-based hospital network whose CanDIG project provides a national, distributed interface for genomics research.

- Expanded the CanDIG project's GraphQL offering to allow for complex genomic and clinical queries on data with 100+ cumulative features, using Python, FastAPI & Strawberry GraphQL.
- Revamped the documentation and continuous development process for the CanDIG project's GraphQL API, resulting in a marked increase in code testing efficiency, using TravisCI, Docker, Newman & Postman.
- Integrated & secured the CanDIG project's GraphQL API with their CanDIGv2 stack using Docker, Tyk & fluentd.
- Performed several exploratory Machine & Federated Learning investigations, delving into genomic data analysis with emphasis on breast cancer stage classification, using Python, Scikit-learn & Pandas.
- Restructured the CanDIG project's Federated-Learning repository to implement & document experiment-agnostic federated & differentially private ML, using Python, Docker & Bash, increasing reusability for the repository.

### Software Development Intern · Furnishr

Toronto, ON · 05/2021 - 08/2021

Furnishr is a Toronto-based startup that offers comprehensive furnishing packages to customers across North America.

- Spearheaded the development of several web scraping scripts to collect detailed product information for over 200,000 products varieties, fully automating the ETL process through Python, Selenium, BeautifulSoup & PostgreSQL.
- Developed a scripting tool using Python, SQL, Pandas & Selenium that would load customer designs and pricing plans into Google Drive in under 20 seconds, to reduce downtime for the Sales team.
- Prototyped several iterations of a *SlackBot* using Heroku, Flask & Zapier to reduce downtime for the Sales team.
- Refactored 10+ web scrapers used in the organization to mesh with the updated code architecture.

## Projects

### CaPredictor · Python · Flask · HTML5 · CSS3 · Bootstrap · Git · Heroku · Scikit-Learn

- Constructed a website to project the market value of NHL players using Python, Bootstrap, Flask & SQLAlchemy.

### ACNH Bot - V2 · Git · Python · Docker · GitHub Actions CI/CD · FastAPI

- Developed an autonomous Twitter Bot to broadcast daily ACNH updates using Python, GitHub Actions & Docker.
- Developed a wrapper for the existing ACNH API to add support for complex queries and on-the-spot tweet generation, decreasing lead time for tweets by 99.25% & allowing for microservice-driven development for the new ACNHorizonsBot.

### Personal Website · ReactJS

- A personal portfolio hosted via GitHub Pages and built using ReactJS.