

Saad Makrod

Portfolio: s-makrod.github.io

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EDUCATION

University of Toronto

Sept 2020 - Present

Honours Bachelor of Science - Computer Science; GPA: 3.76/4.0; Dean's List

Courses: Algorithm Design and Analysis, Computability and Computational Complexity, Software Tools and Systems Programming, Design and Analysis of Data Structures, Introduction to Numerical Algorithms for Computational Mathematics

SKILLS SUMMARY

- **Languages:** Python, JavaScript, C, Java, PHP, Ruby, HTML, CSS, SQL
- **Frameworks:** Express, Django, Spring Boot, React, MAMP, Bootstrap, Material UI
- **Tools:** Git, PostgreSQL, MySQL, SQLite, MongoDB, Neo4j, Heroku, VS Code, Postman, Figma, Jira
- **Soft Skills:** Time Management, Organization, Communication, Independent Learning, Teamwork

EXPERIENCE

OMERS

Jan 2023 - Present

Backend Developer

- Working on **calculations team** to develop **microservices** in **agile** environment to efficiently evaluate pension formulas using **Java, Spring Boot, Google Cloud Platform, and Apache Camel**
- Developed **in-memory caching system** using **aspect-oriented programming** cutting run time of regression tests by **70%**
- Tested services using **JUnit5, Mockito, and MockMVC** resulting in code coverage of **80%** and ensuring high quality code
- **Integrated new security library** into current Spring applications to maintain consistency across company services

University of Toronto T-CAIREM

May 2022 - Jan 2023

Web Developer

- **Led full stack development** across all phases of SDLC using **Django, React, Material UI** and **PostgreSQL**
- Developed **content management system** equipped with **analytic dashboard** providing metrics for future enhancements
- **Implemented secure JSON REST APIs** ensuring maintainable and efficient communication with the frontend application
- Implemented **Google OAuth2** with the client-side workflow resulting in **secure passwordless authentication** of users

University of Toronto

Fall 2021, Fall 2022

Computer Science Teaching Assistant

- Responsible for creating media for **over 500 students** to aid in setup of coding environment, hosting tutorials and marking
- Aiding in **teaching programming fundamentals** to students such as Python syntax, code testing, refactoring and SQL

Royal Bank of Canada

Jan 2022 - Apr 2022

Cyber Security Analyst

- Developed RBC Certificate Management CRUD application using **Django** and **Microsoft SQL** for RBC internal users
- **Implemented custom LDAP authentication** system to restrict access to users with correct active directory groups
- Created **search API** that allows users to build advanced queries for certificates resulting in an efficient way to filter data
- Developed API on IBM Mainframe that uses hashing algorithms to **create secure cryptographic keys** for storage

Microsoft

July 2019 - Aug 2019

Product Marketing Intern

- Created **inventory app that smoothened the query process** of inventory for over 2000 employees using Microsoft Power Platform, later **presented at the Microsoft Canada Annual General Meeting**

PROJECTS

Blog App

Feb 2022

MongoDB, Express.js, React.js, Node.js

- Developed Blog Application which **implements the HTTP REST endpoints** to allow users to manage blogs and comments

Medical Clinic App

Aug 2021

Java, Android Studio, Firebase Realtime Database

- Developed a **mobile app with Agile methodologies** that simulates a medical clinic from both patient and doctor perspective