Mohamed Bachrouch

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SKILLS

Programming Languages: Java, Python, SQL, JavaScript, HTML, CSS, C, C++
Frameworks/Libraries: Spring Boot, React.js, Node.js, jQuery, Bootstrap
Developer Tools: Linux, Bash, Git, GitHub, Microsoft SQL Server, CircleCI, Maven, Gradle, RabbitMQ, REST APIs
Testing Tools: JUnit, Mockito, Postman, Selenium, SoapUI
Software Engineering: Agile Scrum, Object-Oriented Programming, Test-Driven Development

EXPERIENCE

Software Engineer — January 2021 – April 2021 & September 2021 – Present
Manulife Investment Management — *Toronto, ON*

- Developed backend web app features including RESTful APIs and microservices using Java Spring Boot and Microsoft SQL Server to help decommission the LDI datamart which reduced business costs
- Built a feature to fetch and validate security cashflows from multiple SQL databases using Spring JPA
- Developed frontend web app features using React.js which improved UX for quant analysts and portfolio managers
- Wrote unit tests using JUnit and mocked REST APIs using Postman to ensure code quality
- Participated in the GitLab to GitHub and the SQL Server to Azure SQL migration initiatives using Flyway, PowerShell, YAML, and ConcourseCI which improved the development environment for engineers
- Served as Scrum master during Agile Scrum ceremonies and delivered live software demos to clients

Python Teaching Assistant — September 2021 – Present
University of Ottawa, Faculty of Engineering — *Ottawa, ON*

- Presented and monitored weekly laboratory sessions for first year Python students
- Hosted weekly office hours to explain and clarify computing concepts in Python for first year students
- Developed assessment solutions and corrected assignments, labs, and exams

Interoperability Agent and Developer — May 2020 – August 2020
Employment and Social Development Canada — *Gatineau, QC*

- Built, tested, and maintained REST and SOAP APIs using Java Spring Boot microservices, Apache Camel, Postman, SoapUI and XML/XSLT which ensured quality of Web services used across Canada
- Delivered presentations and wrote Confluence docs which contributed to the adoption of contract-first REST APIs
- Participated in Agile sprint planning, daily scrum, sprint review, and sprint retrospective meetings

EDUCATION

B.A.Sc. in Software Engineering — September 2019 – Present
University of Ottawa — *Ottawa, ON*

- 3rd year student with expected graduation in December 2023
- GPA: 9.89/10.0 or 3.9/4.0, Dean's List
- Courses: User Interfaces; Databases; Operating Systems; Computer Networking; Data Structures & Algorithms

PROJECTS

moebachrouch.com | *HTML, CSS, JavaScript, Bootstrap, jQuery, Formspree, AOS library*

- Designed, developed, and deployed a personal portfolio website with a custom domain using the Bootstrap library
- Implemented a contact form using Formspree and validated the form using JavaScript/jQuery and RegEx
- Embellished the website by adding animations using the AOS on-scroll animation library

Service Ontario mobile app | *Android Studio, Java, Firebase, CircleCI*

- Collaborated with 4 classmates on a course project Android app to mimic Service Ontario
- Implemented functionalities such as user registration, authentication, and document upload and deletion

Menace | *Java*

- Developed a machine-learning Tic-Tac-Toe algorithm for a course project based on a 1961 paper by Donald Michie
- The AI learns how to play automatically against a human via reinforcement learning

ACHIEVEMENTS

- Ranked in top 3% among 200 students in a Python course at uOttawa after learning Python for the first time
- Built a personal custom PC from scratch with the help of Google, Reddit, and user manuals for the parts