Moe Bachrouch

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EDUCATION

B.A.Sc. Software Engineering — September 2019 – Present
University of Ottawa — *Ottawa, ON*
- 3rd year student with expected graduation in December 2023
- GPA: 9.87/10.0 or 3.95/4.00
- Dean's list
- Courses: User Interfaces; Operating Systems; Computer Networking; Data Structures & Algorithms

EXPERIENCE

Software Engineer (Co-op) — January 2021 – April 2021
Manulife Financial (John Hancock) — *Montreal, QC*
- Collaborated with stakeholders and Agile Scrum team to decommission a database by building microservices and REST APIs using Java Spring Boot and SQL Server
- Developed front-end features in the quantitative investment strategy system application using React.js and private web APIs, resulting in improved UX for quant analysts and portfolio managers
- Helped the engineering team migrate from SQL Server to Azure SQL and from GitLab to GitHub using Flyway, PowerShell, YAML, and ConcourseCI, allowing for a better development environment for engineers
- Presented newly developed features to clients through software demos

Interoperability Agent and Developer (Co-op) — May 2020 – August 2020
Employment and Social Development Canada — *Ottawa, ON*
- Helped build, maintain, and test REST and SOAP APIs using Java Spring Boot, Apache Camel, SoapUI and XML as a member of an Agile Scrum team which ensured quality of Web services used across Canada
- Delivered presentations to team members and wrote Confluence documentation, contributing to the adoption of contract-first REST APIs
- Participated in a 2-month long Scrum Master course

PROJECTS

Pomodoro | *React.js*
- A productivity application based on the pomodoro technique developed entirely using the React.js library
- Used daily for focusing while studying
- The next step is to release this application as a Chrome and Firefox extension

Expense Tracker | *Java Spring Boot, React.js, H2 Database, Maven*
- Full-stack web application serving as an expense tracker, including a REST API
- The code for this application implements the MVC architectural pattern
- Built as a practice project for full stack development while applying good software engineering principles

Menace | *Java*
- Machine-learning Tic-Tac-Toe algorithm based on a 1961 paper by Donald Michie
- AI learns how to play automatically via reinforcement learning
- The system can be trained against a random player, a perfect player, or against itself

Unison | *HTML, CSS, JavaScript*
- Collaborated with a team of five members to create a responsive website using HTML, CSS, and JavaScript
- Advertises a mock cloud-based collaborative environment for musicians
- Won 3rd place out of 22 groups in a Web development and product pitching competition in front of 3 CEO judges

TECHNICAL SKILLS

Languages: Java, JavaScript, HTML, CSS, SQL, Python, C, C++
Frameworks/Libraries: Spring Boot, React.js, Node.js
Developer Tools: REST APIs, Bash, PowerShell, Git, Microsoft SQL Server, ConcourseCI, Maven, Gradle, RabbitMQ