Asma Gandour

(514) 892-7508

asma.gandour@mail.mcgill.ca

SKILLS

Programming: Java, Python and some knowledge in C and C++
Web: HTML, CSS, Vue.js and some knowledge in Bootstrap, JavaScript and React Typescript
Tech: Spring Boot, Umple, Eclipse, IntelliJ, VS Code, Cucumber
Languages: French (spoken and written), English (spoken and written), Arabic (spoken and written)

EDUCATION

B Eng Computer   **February 2024**
McGill University – Montreal, Quebec
Relevant Coursework: OOP, Model-based programming, Algorithms and DS, Rest API, OS, Software Validation

INTERNSHIP

Technology Summer Analyst Program   **May 2022 – August 2022**
Morgan Stanley – Montreal, Quebec
- Application tracing with Open Telemetry and Jaeger and logging with Loki and Fluent Bit
- Using the Open Telemetry SDK, configured the Jaeger exporter, Otel sampler and global tracer and added spans to a Spring Boot application to observe them on the Jaeger UI
- Configured Fluent Bit to send the application's log file to Loki and observed logs in Grafana

PROJECTS

Online Bug Tracker   **December 2023 & May 2024**
Personal Project – Code – Live
- **Functionalities:** Built an online bug tracker where admin and project managers can publish issues of a given project and assign them to developers. Developers can view and modify tickets assigned to them and create new issues. Other functionalities: viewing a ticket's history, commenting and modification of personal information.
- **Backend:** Use of Gradle as the build tool and use of Spring Boot's CrudRepository to perform operations in the PostgreSQL database. Included a model layer with Lombok annotations, a service layer and a controller layer.
- **Security:** Configured authentication with Spring Security and authorization with JWT, which gets refreshed with a refresh token once expired. Moreover, the controller layer converts the returned object to a DTO object to prevent the user from having access to database objects.
- **Frontend:** Use of the framework Vue.js for the web interface. The frontend performs API requests with Axios and uses Axios' interceptors to add authorization headers and to handle the expiration of security tokens.
- **Testing:** JUnit tests for the persistence layer and service endpoints (Mockito used as the mocking framework).
- **Deployment:** Deployed the backend on Heroku after validating the build with GitHub Actions and deployed the frontend on GitHub Pages.

Online Portfolio   **May 2024 – June 2024**
Personal Project – Code – Live
- Built an online portfolio with React TypeScript to showcase my experience, my education and my projects
- Made it responsive with Bootstrap's grid system and CSS's media queries

Contribution to Open-Source Code: Microscope-Cockpit   **January 2023 – December 2023**
Capstone Design Project – Over two semesters – Code
- In a team of three, extended the Python package Microscope to include handlers for the ASI stage
- Implemented functions in the ASIStage class to move the stage in the X, Y, Z direction by sending string commands to the serial connection
- Configured the ASIStage class to run as a device server and configured Cockpit to run with a depot file