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SAMUEL VALENTINE

https://samuelvalentine.netlify.app

EDUCATION

Bachelor of Engineering — **09/2019 – 05/2024**
McGill University, Montreal, Canada
Major: Mechanical Engineering
Minor: Software Engineering

EXPERIENCE

ENBRIDGE PIPELINES — **05/2022 – 08/2022**

- Designed P&ID's, isometric diagrams, and electrical diagrams for a pump system
- Emergency-response plans, lockout / tagout systems

BOMBARDIER AVIATION – LOADS AND DYNAMICS

Created tools for predicting loads on aircraft wings and fuselage using numerical methods and machine learning: **01/2021 – 08/2021**

- Automating and improving existing conceptual load design tools in Python
- Developing physical interpretations for load prediction results
- Formally presenting and documenting all work throughout each project while using Mercurial version control

MCGILL ROCKET TEAM (MRT) — **09/2019 – 08/2021**

- Designed a JavaFX user interface designed for tracking specifications of the rocket from the ground-station
- Won the design award for the team's Hackathon 2020 event

PROJECTS

Student CV Generator – Hackathon Project (CodeJam) — **11/2022 – 11/2022**

- Created a Java-based application and user interface that quickly surveys a McGill student, including which courses they have taken, to generate a CV targeted at a specific job position using minimal inputs.

Grocery Store Application – Full Stack Project — **01/2022 – 05/2022**

- Designed and implemented a fully functional grocery store application for both Web and Android app making use of Agile, the Spring and Vue frameworks, and GitHub version control.
- Customers could make orders in person or for delivery, and workers could make scheduling changes, modify inventory, and prepare orders, all through a simple user interface while keeping track of accounts and inventory using a Heroku database.

Climb Safe – Full Stack Project — **09/2021 – 12/2021**

- Built an application using which users could autonomously sign up for rock-climbing trips specifying duration, equipment, or guides necessary, while workers could modify the scheduling and availability of these services.
- A Java-based application showcasing the power of Umple code generation, JavaFX, as well Gherkin, Cucumber, and JUnit testing.

Website Projects — **11/2021 – Present**

- Built volunteer and personal websites such as the one linked above using HTML, CSS, Javascript and Bootstrap.

SKILLS

PROGRAMMING LANGUAGES
Python: TensorFlow**,** Pandas, Seaborn, NumPy, Sphinx
Java: Software Development (see below)
Other: MATLAB, Simulink, SPICE, LabView

SOFTWARE DEVELOPMENT
Version Control: Git, GitHub, Mercurial
UML: Class, State Sequence Diagrams
Testing: Gherkin, Cucumber, JUnit, Mockito, Postman, Selenium
Agile: Sprints, Issues, Milestones
Framework: Spring, Vue
Web Design: Heroku, Netlify
Front-end: JavaFX**,** HTML, CSS, JavaScript, Vue.js
Databases: PostgreSQL, Heroku
Build System: Gradle
Code Generation: Umple

LANGUAGES
English – Fluent
French – Conversational