Jon Menard

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Education

Software Engineering   2017–Present

Carleton University, Ottawa, ON
- 4th Year Standing, (A-)
- General In-Course Scholarship (2017)
- J. Lorne Gray Scholarship (2020)
- 2019-2020 Deans' Honour List
- Graduation Date: April 2021

Technical Skills

- Strong in back-end development of dynamic web applications using PHP and MySQL.
- Advanced in front-end web development using JavaScript, HTML, CSS.
- Experienced with MySQL and Postgres database management.
- Mature in object-oriented design, and implementation of Java and Java frameworks.
- Knowledge of GitHub and Git Commands.

Applied Projects

4th Year Engineering Project   Sept 2020-Present
Carleton University (in progress)
- Worked alongside Professor Gabriel Wainer and 3 other students to create a web-based platform that stores and hosts simulations for the Advanced Real-Time Simulation Laboratory (ARSLabs).
- Implemented a normalized database scheme to store DEVS models and their relationships.
- Created new services with Java Spring framework to access the database hosted on Heroku.
- Worked on a frontend web application to connect to the Java services using Thymeleaf.

C# Machine Learning Game Development
Self-Driving Car   Sept 2020-Present
- Worked in Unity to create a simulation of a car parking in a parking lot.
- Created a neural network that receives inputs from the car's sensors and computes them to apply gas, steering and break for the car.
- Trained the neural network using the PPO Genetic Algorithm

Web Design   Jan 2020-Present
Portfolio
- Created a portfolio using HTML, CSS, JavaScript, and PHP
- Created a variety of games such as Snakes, Flappy Bird, and Tetris
- Created an evolutionary AI to path find.
- Developed an AI to play Tetris.
- www.jonmenardportfolio.ca   Sept-Dec 2019

Java Developer   Sept-Dec 2019
JumpIn
- Collaborated with a team of students to design and implement a GUI
  based version of the board game, JumpIn using Java and JavaFX.
- Planning the design of the game using Violet UML diagrams
- Unit testing the game using Junit.
- https://github.com/jonmenard007/JumpIn

MySQL
- Created a database in phpMyAdmin for my portfolio which has
  different levels of users. The database manages the user's
  information, allowing them to login, and edit their personal profiles.
- Currently Working at Statistics Canada on the Database Application
  Development Support Team.

Researcher   Sept-Dec 2018
470 Laurier Energy-Efficient Research Project
- Lead an investigation on optimization of energy conservation for a
  470 Laurier Pool and Sauna
- Received approval for research in a formal project proposal and
  presented findings in a report and presentation to a project manager

Work Experience

Government of Canada – Statistics Canada   2020–Present
Statistics Canada, Ottawa, ON
- Student intern for the database application development support team
- Optimized existing SQL queries.
- Prepared and test services for 2021 May Census.
- Provided administrative support for existing databases and servers.

Pool Construction and Maintenance and Landscaping   2018–2019
Hickling Pools and Spas, Uxbridge, ON
- Serviced, constructed, and maintained inground vinyl pools.
- Landscaping .
- Customer service and retail.

Attendant Services   2018–2019
Carleton University, Ottawa, ON
- Provided personal assistance to students with various physical and
  cognitive disabilities who require intensive hands-on care with daily
  essentials.
- Requirements include: personal grooming; assistance with bathing and
  toileting; transporting clients to and from the toilet, shower, bath, or bed;
  feeding and giving medication to clients through feedings tubes; meal
  preparation; checking vital signs; providing first aid when necessary;
  transportation;

Lifeguard, Swim Instructor and Camp Supervisor   2014-2017
Township of Uxbridge, Uxbridge, ON

Achievements

- Red Cross Water Safety Instructor, and National Lifeguarding Society
- Standard First Aid & CPR C