

JOSHUA MAZARIEGOS

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Education

Highschool Diploma, Humberside Collegiate Institute

Sept 2012 - Aug 2016

Computer Science and Information Security Specialist, University of Toronto

Sept 2016 - April 2020

Skills

- Experienced working in a team and individually effectively
- Experienced working using Sprint and Agile methods of tracking work
- Experienced making web pages using HTML, CSS, and Javascript
- Experienced in object oriented programming in Python, Java, and C
- Experienced implementing Model-View-Controller along with design patterns and regex
- Experienced implementing different database languages integrated with a front-end such as mongoDB, neo4J, mySQL, SQLite
- Proficient in math, calculus, and linear algebra

Past Projects

Paint Program (Java):

- Paint program itself is implemented using MVC
- Painting part of the program is implemented using design strategies such as the factory design pattern for building shapes then strategy design pattern for manipulating shape as its being drawn
- Shapes were implemented using object oriented programming where all shapes are classes and command design pattern was also implemented to be able to do undos and redos so then there was a history of commands of shape manipulating with certain shape objects
- Regex and finite state machine was used to create saves and translate the save file where the save file would be created using an order the regex could understand, then have a finite state machine be able to translate that save file using regex then put those shapes into the paint program

Student Helper Webapp (HTML, CSS, Javascript, mongoDB, Spring Boot, Java, Python):

- Created a webpage for the timetable and course search using HTML, CSS, and Javascript
- Created RESTful API endpoints for getting and posting data from our database in JSON format, then having the data interpreted used for enrolling, searching, generating, and maintaining the timetable
- Uses scraped data for the endpoints which are implemented using mongoDB and Spring Boot

Self Driving Remote Car (Pytorch, Tensorflow, Python, Jupyter Notebook, ROS, Flask, DASH):

- Worked to make a remote car be able to drive through a school hallways on their own
- We would collect photos and respective speed / angle using a camera and while we drove it on our own to make the training data and test data which would then be trained in pytorch using a mainly a Nvidia Network
- Attempted to use the depth data of our RGBD camera on the remote car and also had a Flask/DASH server to record the car's angles as it drives to see live how its driving

Languages

Proficient In: Python, C, Java, GIT, Latex, Bash Scripting, HTML, Javascript, Dash, Flask

Familiar With: mySQL, noSQL, SQLite, CSS mongoDB, Spring Boot, ROS