Henry Du

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Languages

- Java
- HTML5
- CSS3
- Python
- C
- C#
- C++
- JavaScript
- Turing
- Scheme
- Bash

Frameworks

- MVC3
- Flask
- Node.js
- Angular

Tools

- Socket.io
- Photoshop
- SVN
- Git
- Pebble.js
- NLP
- WPF
- IIS
- AWS
- Jquery
- Firebase
- SQL
- Azure

Testing

- Selenium
- NUnit

Education

University of Waterloo, Bachelor of Computer Science   Sept 2014 – Present
- Expected graduation date, April 2019, 3.33 GPA

Employment

International Medical Solutions, Software Developer   Sept 2015 – Dec 2015
- Worked to design and implement the web viewer, debugging logs
- Supported a back end running on Amazon Web Services implemented using the .NET MVC 3 framework and deployed with IIS
- Implemented automated regression tests using NUnit and Selenium
- Collaborated with others using Tortoise SVN to share and update code base
- Troubleshot and refactored code written by previous coop students
- Redesigned UI, patient anonymization, pushed new features to production

Merxmotion, Web Designer   Dec 2012 – Mar 2013
- Created webpages by implementing design elements requested into HTML/CSS format

The Mississauga Learning Centre, Tutor   Feb 2012 – Sept 2013
- Taught students in Mathematics, English, Science, and any other subject they may have difficulty with

Projects

Presentebble (https://github.com/HenryDu25/Presentebble)
- Constructed a pebble application that controls a PowerPoint on a user's computer
- Includes a computer application which parses the PowerPoint for notes and uploads them to the pebble so the slides are in sync with the notes

hAikuu (github.com/thekelvinliu/hAIkuu)
- A classification machine learning algorithm hosted on Microsoft Azure which uses NLP to generate haikus from a photo
- Photo is analyzed using Clairifai to identify the main subject
- Related concepts are found by traversing a graph of words which links words based on thematic similarity
- Semantically validates haikus by comparing the parts of speech to many haikus
- NLP, Flask, Front end, Clairifai API, Facebook API

Singked (singked.jying.ca/)
- Created a web app which allows multiple users to view YouTube videos in sync with each other online
- Each client communicates to a Node.js server running Sockets.io which broadcasts the current time, video state, and video queue to everyone else

Quiq (quiq.firebaseapp.com)
- Implemented a frictionless way for students to ask relevant questions in class
- Students use an app for their phone where they may vote on the best questions or send another question to a server running Angular and a Firebase database
- The professor runs accesses a website where they may record their questions to seamlessly upload and store

Android Maze program
- Released a maze game for android that uses the accelerometer to navigate
- Wrote an intersection algorithm to handle the square and line collision