Mitchell Scott Sandre

msandre@edu.uwaterloo.ca C: 905-334-3571
github.com/MitchellScottSandre linkedin.com/in/mitchellscottsandre

Summary of Qualifications

Work Ethic: Demonstrated determination in solving a major defect in a web application while working for TD Securities. Most logic handling the database interaction was reworked to fix workflow approval errors

Communication: Collaborated professionally with administration as high school Prime Minister while working with peers to accomplish goals. Consistently updated Git and responded to assigned JIRAs at TD

Technical Skills

Programming Languages: Skilled with Java, C, and C++; proficient with Python, JSP, HTML, SQL, XSL, CSS

Development Tools and Concepts: Eclipse, NetBeans, SQL Developer, Git, GitHub, Microsoft Office, Agile, Struts

Work Experience

Solutions Developer Co-Op at TD Securities – GED Development – Toronto May 2016 – August 2016

- Used Java, SQL, XSL, and batch scripting to increase efficiency of financial report generation
- Used Java, HTML, and JSP to fix a critical bug and add additional features to a TD onboard approval website
- Worked as part of the Global Equity Derivatives Development team to improve primary trades platform
- Collaborated with platform users and Database Analysts to gain practical experience with all phases of the Software Development Life Cycle, primarily in the areas of Development, Testing, and Implementation

Clerical Worker at HealthSense Medical – Oakville April 2014 – July 2015

Camp Counsellor at Kerr Street Day Camp – Oakville June – August 2014, 2015

Projects

Poker Game (Java): December 2016

- Complete Texas Hold 'Em Poker game with competitive AI, each with their own unique play personalities
- Attractive user interface that includes dynamic table elements and animations, scrolling game updates
- Computer players make moves based on own personality traits paired with statistics of player and pot odds

Matrix Manipulation Calculator (Python): November 2016

- Efficiently calculates the determinant and inverse of a matrix, and can solve a system of *n* linear equations

Sudoku Solver (Java): October 2016

- Able to parse text file of Sudoku, or conveniently take user input, and correct solution
- Solution algorithm uses logic-based placement and elimination paired with stochastic searching

Text File Encryption (Java): September 2016

- File encryption/decryption program made in Java. Parses specified file and outputs encrypted text to desired directory using either Playfair or Vigènere encryption algorithms. 800 lines of code

Abstract Strategy Games (C++): November 2015 – September 2016

- Various games made in C++ (Pentago, Connect Four, 3D TicTacToe, Battleship), each approx. 1000 lines of code; include competitive AI with difficulty selection and two-player mode; played through console

GooseRun (C): November 2015

- Used an Arduino C Library to create "GooseRun" with peers: a side-scrolling, obstacle avoidance game that parodies Google's T-Rex Dino Game. Designed map-generation and obstacle detection algorithm.

Education

Candidate for Bachelor of Software Engineering September 2016 – Present

University of Waterloo, Waterloo, ON