MITCHELL SCOTT SANDRE

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SKILLS

PROGRAMMING LANGUAGES	Java, C, C++, Python, JS, CSS, SQL, XSL
DEVELOPMENT TOOLS	Netbeans, Eclipse, SQL Developer, Git, Atom, IntelliJ, Webstorm, Apache, Bootstrap
DEVELOPMENT CONCEPTS	OOP, Struts, Agile, Advanced Data Structures, Searching and Sorting Algorithms, Debugging

EMPLOYMENT

May 2016 to Aug 2016

TD Securities - GED Development · Associate Intern Developer · Toronto

- 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

Apr 2014 to Jul 2015

HealthSense Medical · Clerical Worker · Oakville

PROJECTS

Jan 2017

Personal Website

- Created using Bootstrap with Custom CSS and JS to display my portfolio of projects, relevant contact information, and important links for employers

Dec 2016

Texas Hold 'Em Poker (Java)

- 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
- Includes excellent usage of OOP and inheritance, used in numerous classes and approx. 5500 lines of codes

Dec 2016

Matrix Manipulation (Python)

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

Nov 2016

Sudoku Solver (Java)

- 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

Sep 2016

Text File Encryption (Java)

- 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

2015 to 2016

Abstract Strategy Games (C++)

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

Nov 2015

GooseRun! (C)

- 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

Sep 2016 to Current

Programming Assignments (C, C++)

- various assignments completed for CS 137 Programming Principles, including implementing Selection-, Insertion-, Merge-, and Quick-Sort
- various assignments completed for CS 138 Intro. to Data Abstraction and Implementation, including creating various advanced data structures, search trees

EDUCATION

2021

University of Waterloo

Candidate for Bachelor of Software Engineering