

MITCHELL SCOTT SANDRE

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EDUCATION

University of Waterloo
Bachelor of Software
Engineering 2021

SKILLS

PROGRAMMING LANGUAGES: Java, C, C++, Python, JavaScript, 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

TD SECURITIES - GED DEVELOPMENT

Associate Intern Developer

Toronto
May 2016 to Aug 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

PROJECTS

PERSONAL WEBSITE

Jan 2017

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

TEXAS HOLD 'EM POKER (JAVA)

Dec 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
- Includes excellent usage of OOP and inheritance

MATRIX MANIPULATION (PYTHON)

Dec 2016

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

SUDOKU SOLVER (JAVA)

Nov 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)

Sep 2016

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

GOOSERUN! (C)

Nov 2015

- A side-scrolling, obstacle avoidance game that parodies Google's T-Rex Dino Game. Created with peers using an Arduino C Library
- Designed map-generation and obstacle detection algorithm

ABSTRACT STRATEGY GAMES (C++)

2015 to 2016

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

VOLUNTEERING

GARTH WEBB SECONDARY SCHOOL · Student Council President · Oakville

Sep 2012 to May 2015

- Organized high school's Student Government and facilitated meetings and communications between student groups and administration

ME TO WE · Student Volunteer · Lullin, Ecuador

Mar 2015

- Assisted in creating new addition to elementary school in local community and began construction on water filtration facility