**QI (VICTORIA) DONG** hidden text Kanata, Ontario

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**Skills Summary\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Languages:** Java, Python, C, C++, JavaScript, HTML, CSS

**Operating Systems:** Linux, Windows

**Databases:** MongoDB

**Tools:** GIT,Meteor,Mocha**,** Minitab, GDB

**EDUCATION\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** [**Bachelor of Computer Science at Carleton University,**](javascript:mywindowOpen('/prod/hwskzdar.P_CallAudit?szvid=QUFBUDNvQUFQQUFBRnY4QUFB&jobQSeqNo=MzgwMDAwMzU=&jobid=d3cxNjA5MjAxMTU0NTA1MA==')) **Co-op Option**  September 2015-Present

* Software Engineering Stream
* Minor in Statistics
* Second Year Undergraduate, CGPA 11.53/12(Letter Grade: A+)
* Expected Graduation: April 2020
* Dean's Honour List 2015-2016
* University Entrance Scholarship 2015-2016

**Relevant Courses**

* Introduction to Systems Programming (A+)
  + Used **C, C++** on **Linux** of VM for data representation and memory management, concurrent computing (process and threads), Program Structure and Shell script(**Bourne shell**)to gain more knowledge of computer system
  + Used **GDB** to debug assignments
* Abstract Data Types and Algorithms (A+)
  + Gained strong understanding on data structures via analyzing memory and efficiency of data structures in **Java** through Java Collections Framework, Random Binary Trees, Treaps, Heaps, Meldable Heaps, 2-4 Trees, Red-Black Trees etc. to increase the understanding of data structures
* Introduction to Computer Science I (A+)
  + Developed multiple interactive image based projects using **Python** library SimpleGraphics.py, modules, classes and objects
* Introduction to Computer Science II (A)
  + Built several **Java** projects with using different object oriented program methodologies such as inheritance, method overloading, polymorphism
* Introduction to Statistical Modeling I (A+)
  + Analyzed data using **Minitab** by producing scatterplot, histogram etc., computing mean, variance, standard deviation and correlation coefficient

**WORK EXPERIENCE\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Researcher -** School of Computer Science in Carleton University June – September 2016

* Study feasibility of online routing for dynamic graphs and come up with an algorithm to solve the routing problem related to edge changeable graph in computational geometry.
* Gained extensive knowledge of online routing
* Writing a research paper for publication

**Teaching Assistant -** School of Computer Science in Carleton University September 2016 – Present

* Assisted a professor of Introduction to Computer Science class with creating assignments, marking student works, monitoring exams
* Assisted 30+ students with computer science related lab questions and issues
* One on one tutoring to answer students’ questions related to course materials, projects and assignments

**Software Developer (volunteer) -** EstaffMatch, 80 Aberdeen St, Ottawa, ON June –September 2016

* Contributed to Estaffmatch (Hyre) team as a software developer using **GIT** including basic committing, pulling, pushing and branch merging, head reset, patch sending etc. to work and communicate with other branch effectively
* Programmed on both server and client side with **Meteor** (a **JavaScript** Platform also use **HTML CSS, JQuery** and various packages such as **blaze, spacebars, aldeed: tabular, monentjs: moment etc.**) and fix the problems related to email sending, users blocking and interaction with **MongoDB**

**APPLIED PROJECTS \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Memory Match Game**

* Developed a web game that allow user to flip cards in the game board. Once the two cards match, they stay and use **AJAX, JSON** to send info back to server.
* Programed server side functions using **Node.js** combined with **JQuery, HTML, CSS**

**Chat App in C**

* Implemented simple chat app using **C** language developed **in Linux** Environment that allow users from different hosts to communicate with each other by running two copies of the same executable.
* Efficiently used **sockets** including the techniques of creating, binding, listening, connecting, accepting etc. to achieve asynchronous communication, and switch client and server on time.

**Chat App in JavaScript**

* Designed chat app using **Node.js** combined with **JavaScript, HTML, CSS** made use of **Socket.io** and **Express.js** to achieve the server client communication
* Utilized **Pug** template engine to display on create dynamic content on client side
* Support multi user chat features including user login, blocking and private messages.

**To-do App**

* Created a simple planner application that supports user login, checklists, private tasks hiding
* Utilized **MongoDB** collections by implementing various methods such as insert, find, update and remove to efficiently interact with the task data base
* Utilized **Meteor** accounts system, ReactiveDict, subscribing and publishing methods to expand functionality of the to-do app
* Utilized **Mocha** JavaScript test framework for app testing

**Maze Game**

* Created a **python** game based on **SimpleGraphics.py** library
* Utilized python key press event to achieve player movement and treasure collection

**VOLUNTEER EXPERIENCE\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

* Paul Menton Center Notetaking Services for Students with Disabilities – Winter Semester Volunteer Note taker. Winter 2015
* Meet Aaron Ross event assistant March 2016
* Terry's CAUSE on Campus-volunteer September 2015