Victor Xiong

Computer Engineering  
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TECHNICAL SKILLS

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| **Platforms and Libraries** | **Languages** | **Development Environments** |
| * Selenium/Specflow * Sikuli (GUI Automation Tool) * AngularJS * Django * ASP.NET MVC * Kendo UI * JSON * JQuery * Ext.net | * Java * C, C++, C# * Python * Verilog (HDL) * ARM/X86 Assembly * Typescript/Javascript * Database Queries / Stored Procedures * HTML/CSS | * Visual Studio * Eclipse * NetBeans * ModelSim (HDL simulator) * Quartus (FPGA design tool) * Altera Monitor Program * Git/SVN * SQL Server * Android Studio |

ACADEMIC & CO-OP STATUS

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| **Academic Program** | * Computer Engineering; 4 of 8 academic terms completed * Anticipated date of graduation: June, 2021 |

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| **Co-op Status** | * Completed 2/5 work terms; available 8 months, beginning January, 2019 |

CO-OP WORK EXPERIENCE

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| **Paragon Testing Enterprises (Vancouver, BC)**  ***Junior Software Developer / QA Intern*** | **May 2018 – Present** |

* Wrote and implemented test cases and scenarios using Selenium and Specflow features to verify the functionality of Paragon’s web applications through multiple workflows, including edge case scenarios, thereby contributing to the development of automated scripts that can be utilized to test applications after each deployment cycle
* Automated the workflow of completing Paragon’s computerized language proficiency tests by using Sikuli (GUI Automation tool) to simplify the process of testing and quality assurance of Paragon’s test delivery portal
* Performed quality assurance on code written by both senior developers and co-op interns to ensure the correctness of code pushed onto production servers
* Worked with senior developers to debug various production issues, resulting in a better understanding for the structure of the code base for Paragon’s flagship products
* Developed features and wrote code requested by stakeholders to improve existing web applications or fix bugs, resulting in constant communication with stakeholders to meet their requirements
* Participated in daily scrum meetings, thereby furthering the understanding of how the company’s goals correlate with the operations of its Information Technology Department
* Mentored and provided direction and guidance to an incoming co-op student by explaining the workflow of various applications, debugging issues and answering questions, thereby creating a more productive work environment
* Consistently wrote database queries and altered stored procedures to implement new features and display productive information to uses as part of the development process for tickets involved with each deployment cycle
* Wrote synchronous code within the model, view, controller architectural pattern, involving database queries and API calls to fetch information from the backend to be displayed on the front end of web applications

TECHNICAL PROJECTS

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| **NHL Android Application (Personal Project)** | **April 2018 – June 2018** |

* Developed an android application from scratch to query the NHL API and display the standings, scores and schedule of the NHL to users
* Designed a graphical user interface for the application using XML and Android Studio to present API data in a user-friendly format, while also allowing for dynamic adjustment for different screen resolutions
* Utilized Android’s Volley library to perform HTTPS GET requests and query the NHL API to relevant JSON packages

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| **Django Framework Based Web Application (University of British Columbia)** | **March, 2018** |

* Designed and implemented a web application to display information and update users on the environmental status of the third floor of the Electrical and Computer Engineering building at UBC, communicated by an autonomous robot that can accept user input and feedback.
* Utilized Ajax and JQuery to perform automatic page updates
* Created tables in SQLLite Database to store data, including information regarding ambient light, noise level, temperature, and the robot’s location coordinates
* Used models to fetch information from the database to be passed to the frontend, consisting of view templates, to be displayed to users in a graphically intuitive manner

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| **Databases, Queries and Statistical Learning (University of British Columbia)** | **November 2017** |

* Worked with datasets involving lists of restaurants, users and reviews in JSON format, resulting in the construction of a mutable database using Java
* Implemented a k-means clustering algorithm to group together clusters of inputs around centroids. Restaurants were grouped around centroids based on their longitude and latitude positions
* Executed a least squares regression algorithm to predict future trends based on current data. Given the average price of a restaurant, a user’s review for that restaurant would be predicted based on that user’s past reviews.
* Constructed a multi-threaded server capable of handling simple requests including support for structured queries

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| **Simple RISC Machine (University of British Columbia)** | **October 2017 - November 2017** |

* Utilized ModelSim and Quartus to build a simple “Reduced Instruction Set Computer” (RISC) with Verilog, thereby gaining a better understanding of the chip functionality for ARM “instruction set architecture”
* Integrated a finite state machine controller and instruction decoder to allow the RISC to support the following instructions: MOV, ADD, CMP, AND, MVN
* Added memory to RISC to store and hold instructions, resulting in an extended RISC Machine interface that supports outside communication with memory mapped I/O
* Expanded the RISC Machine to support branching and conditional branching, a key component of function calls, allowing programs implementing any algorithm within the scope of the memory to be executed

WORK EXPERIENCE

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| **Infinisia Inc. (Burnaby, British Columbia)**  ***Shipping Department*** | **June 2015 – Present** |

* Trained over fifteen new workers using demonstrative techniques on the shipping and packing process and operation of heavy machinery including forklifts, thereby easing their transition into a new work environment

VOLUNTEER EXPERIENCE

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| **Burnaby South Peer Mentoring (Burnaby, British Columbia)**  ***Volunteer*** | **October 2014 – June 2016** |

* Encouraged discussion amongst students regarding societal issues, which helped facilitate a greater understanding within the class of approximately 20 students on ideas of how to better succeed in school
* Mentored a class of younger students by initiating group discussion, creating ideas and defining needs

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| **Burnaby South Badminton Club (Burnaby, British Columbia)**  ***President*** | **September 2014 – June 2016** |

* Organized schedules and logistics by communicating effectively with teachers and staff
* Utilized social media platforms to inform the approximately 50 club members of any announcements

EDUCATION

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| **University of British Columbia**  ***Computer Engineering*** | **September 2016 – Present** |

AWARDS

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| MacKenzie Swan Memorial Scholarship  Artona Scholarship  BC Achievement Scholarship | **2018**  **2016** |
| AP National Scholar Canada (Score of 4 or higher on 5 AP exams) | **2015** |
| 99th Percentile SAT 2330 – MATH 800; READING 750; WRITING 780 |  |

ACTIVITIES AND INTERESTS

Piano, Soccer, Grouse Grind, Skiing, Basketball, Hockey