Jaskirat Singh

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TECHNICAL SKILLS

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| **Experience with Software** | **Programming Languages** | **Development Environments** |
| * Auto CAD * Altera Monitor Program * Git * Microsoft Office * Linux Terminal * Basic exposure with Microsoft Azure services. * LaTex * Fritzing | * Java (1+ years) * C++ (1+ years) * Python * Verilog (HDL) * ARM Assembly * C * x86 | * Eclipse * IntelliJ * ModelSim (VHDL simulator) * Quartus (FPGA design tool) * Arduino IDE * Raspbian |

ACADEMIC HISTORY

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| **Sharjah Indian School, Dubai, U.A.E** | * CBSE curriculum (Indian Education Board) * Grade 1 (April 2005) – 12 (May 2017): 92.4% |
| **College of New Caledonia, Prince George, B.C, Canada** | * Applied Science Engineering (Equivalent to UBC 1st year Engineering) * Sept 2017 – April 2018 * GPA : 4.01 |
| **University of British Columbia, Vancouver, B.C, Canada** | * Computer Engineering (Transferred into 2nd year) * Sept 2018 – Present |

TECHNICAL PROJECTS

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| **Simple RISC Machine (UBC)** | **(CPEN 211: Intro to Micro Computer)** |

* Used 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
* Developed over the course duration.
* September 2018- December 2018

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| **Graph Abstract Data Type Implementations (UBC)** | **(CPEN 221: Principals of Software Construction)** |

* Constructed two different representations of a graph interface, thereby gaining a better understanding of the concept of encapsulation
* Implemented Breadth first search and Depth first search algorithms to find the distance, diameter and center of traversed graphs (Graph ADT and algorithms were applied to two datasets)
* November 2018

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| **Sentiment Analysis of a text (UBC)** | **(CPEN 221: Principals of Software Construction)** |

* Using Microsoft’s Azure Cognitive Services and building upon scratch code to calculate the sentiment of a text.
* Dealt heavily with reading and writing files in JAVA
* October 2018

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| **Basic Dancing Robot (UBC)** | **(CPEN 291: Computer Engineering Design Studio)** |

* Utilized Arduino IDE to manipulate servo motors and make a robot dance to a song. Added LCD (for display), piezo buzzer (for music), keypad (for input) and led lights

WORK EXPERIENCE

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| **WALMART (New Westminster, British Columbia)**  ***Fulfillment Associate*** | **June 2018 - Sept 2018** |

* Customer Service and Stocking

VOLUNTEER EXPERIENCE

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| **Clean Up UAE (Sharjah, United Arab Emirates)**  ***Volunteer*** | **September 2014** |

* Leading a team of students under mentorship from Emirates Environmental Group (EEG) in learning effective waste management techniques and cleaning up areas in Rural Dubai.

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| **Can Collection Campaign (Sharjah, United Arab Emirates)**  ***Volunteer*** | **October 2015** |

* Competing with other environment protection clubs by collecting undisposed cans/tins.
* Lasted for 2 weeks and ended with 5th position with 20+ clubs competing

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| **UBC Engineering Volunteers (Vancouver, British Columbia)**  ***Volunteer*** |  |

* Event 1 : UBC Engineering OPEN house: Attending register’s desk, leading lab tours. (November ,2018)
* Event 2: Help answer prospective UBC engineering students with admission/program related questions

COMMUNICATION

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| Can read, write, speak fluently in English, Punjabi, Hindi. |

Can read fluently in Arabic

ACTIVITIES AND INTERESTS

* **Bhangra** – Indian Cultural Dance (Won multiple interschool competitions)
* **Cricket** – Played 2 years for high school and various club matches locally (Sharjah, U.A.E)
* **Environment Protection** – Active member of HOPE (Help Our Planet’s Environment) Club (2013-2016)  
  Lead various healthy competitions, presentations, activities etc spreading awareness of Environment Protection.

REFERENCE

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| 1. Arun Sharma: Fulfillment Department Manager, Walmart, New Westminster Branch. 604-812-4129 |