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Summary of Skills & Accomplishments

- Proficient in several programming languages including C#, Java, C, Python and Lua.
- Full-Stack Development experience with web technologies such as JavaScript/jQuery, Framework7, PHP, SQL, HTML5 and CSS.
- Owner & Creator of Compsci Studio; a YouTube channel dedicated to programming/computer related tutorials.
- Competed in the Ontario Engineering Competition at UOIT and ranked 2nd overall for a cross platform Google Map based app.
- Experience working with large scale software, revision control and agile software design methodologies.

Work Experience

- ***Tulip Retail*** *Sept-Dec 2016*
  - Worked as a Full-Stack Developer on the Clienteling team, implementing new features for the Tulip platform.
  - Developed on and built many new core features for the platform such as SMS/Email integration and the Activity Log.
  - Created public and private API endpoints to access core data throughout the application.
  - Used PHP, JavaScript (Framework 7), SQL and HTML/CSS throughout the term on a daily basis.

- ***Canon Innovation Lab*** *May-Aug 2016*
  - Worked as a Prototype Developer, implementing new innovative software and hardware ideas for Canon products.
  - Used languages such as Python, Lua, Java (Android) and several more based on the task at hand.
  - Projects were set every sprint and a working proof of concept is expected by the end of two weeks.
  - The projects cannot be disclosed, but range from hardware peripherals for Canon cameras to mobile applications for Android/iOS.

- ***Camis Incorporated*** *Jan-Aug 2015*
  - Worked as a Software Developer implementing software features and fixing/maintaining large code-bases.
  - Programmed in C#/.NET Framework, XAML and Microsoft T-SQL utilizing Visual Studio and Microsoft SQL Server.
  - Implemented both front and server side logic for a multimedia feature enabling users of the Camis software to stream training/informational videos.
  - Improved an existing software feature used for simulating transactions within Camis software.
  - Worked in a team of 7 implementing a content management system for managing content on hundreds of Park websites.

- ***Sheridan College*** *May-Aug 2014*
  - Taught Intermediate Java Programming to classes of 30 to 50 students.
  - Created and held lecture/lab sessions on a weekly basis, tutored students and assisted Professors.
  - Managed, updated and created student profile records and other various documents.

- ***Pepsi Co.*** *June-Aug 2013*
  - ❖ Worked in the Quality Assurance department as the Document Control Co-ordinator at the Cambridge Frito-Lay Plant.
  - ❖ Managed, updated and distributed important company documents.
  - ❖ Prepared and revised company documents for FSSC-22000 (Food Health and Safety Audit).
  - ❖ Trained employees in document control and software such as Microsoft Excel.

Projects

- ***Nintendo 64 Controller Protocol Reverse Engineering***
  - ❖ Reverse Engineering/Decoding the serial data transmitted to/from the console and controller.
  - ❖ Implementation is done on an 8-bit Atmega328P microcontroller (Arduino UNO) utilizing AVR Assembly.
  - ❖ The microcontroller interprets signals received and transmitted and will be later used to create an adapter for PC.

- ***Live-Video Streaming via Wi-Fi Direct***
  - ❖ Implemented a Flask Server on a UDOO Neo Development board serving live video via Wi-Fi Direct.
  - ❖ The system will be utilized for the 2016 Unmanned Drone Competition.

- ***CMOS Wearable Body Temperature Sensor***
  - ❖ Designed, implemented and simulated a wearable temperature sensor using CMOS technologies.
  - ❖ Utilized Cadence software in order to implement, debug and simulate real-world effects.
  - ❖ The temperature sensor was required to operate with a resolution of 1°C and an accuracy of 0.1°C.

- ***Central Processing Unit***
  - ❖ Designed and implemented a 16-bit instruction set including the machine format for the assembly language.
  - ❖ Designed and implemented the internal organization of the microprocessor utilizing a Digilent Nexys 3 Spartan-6 FPGA, VHDL and simulation tools.
  - ❖ After the microprocessor was designed, a test application which calculated the n^{th} Fibonacci value was created for validation.

- ***3D-Printed Toy Vehicle***
  - ❖ Designed and prototyped a toy vehicle which needed to be assembled and disassembled easily without the use of glue or other adhesives.
  - ❖ The toy needed to be powered without the use of batteries to operate.
  - ❖ Utilized SolidWorks in order to create the structure of the design which was then 3D-Printed.
  - ❖ The design utilized a peg and hole assembly configuration to simply fix the two halves of the frame together.

Activities and Interests

- Programming, Web Development, Game Console Hardware/Technology
- Golfing, Hockey, Volleyball, Tennis and Squash

Education

- ❖ University of Guelph – Computer Engineering, Co-op (B.Engg) *2012 – April 2017*
- ❖ Galt Collegiate Institute (High School) – Earned Computer Science Award *2008 – June 2012*