Ben Morris | 3A
Software Engineering

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Undergraduate Software Engineering student in 3A term at the University of Waterloo. Experience developing many types of applications for different purposes, including web development, robotics, and video game development.

Previous Employment

MedAvail Technologies Inc.   **Mississauga, Canada**
Co-op Developer   *September 2015 - December 2015*

- Primarily worked as a member of the software architecture team.
- Wrote database communication retrieval and processing logic, and made several enhancements to the database schema in use.
- Enhanced the company's NSIS installer systems to install client specific features depending on the machine it was being run on.
- Also worked with front and back end development for the company's suite of web applications.

MedAvail Technologies Inc.   **Mississauga, Canada**
Junior Developer   *January 2015 - April 2015*

- Primarily worked as a member of the Machine team, writing logic for the "MedCenter" robotic pharmacy
- Enhanced a code analysis tool used by the developers to ensure correctness of the code being checked in.
- Helped create a "watchdog" application to monitor the MedCenter's software in case of connectivity issues or unexpected complications.
- In addition my work included fixing bugs, reviewing code, and working with other developers to add new features.

Ontario Ministry of Transportation   **St.Catharines, Canada**
System Administrator   *May 2014 - August 2014*

- Monitored and deployed web applications.
- Performed database analysis and optimization.
- Created SQL scripts and views using Microsoft excel to display information from the database for non-technical users.

Luribox UF   **Sandviken, Sweden**
Co-founder and Lead Designer   *Fall 2011 - Spring 2012*

- Founded a "Youth Company" along with 7 other classmates.
- Designed earphone holders to help users keep their earphone cords untangled.
- Produced and sold the product not only for individual customers, but also sold them in bulk to third party retailers.

Notable Projects

- **Table Top Helper** *'Helping RPG groups communicate and organize'*
  - Created an online tool to help players of table top role playing games such as dungeons and dragons organize their game sessions, as well as keep track of important information
  - Table Top Helper is a single page application, built with Angular.js front end logic, Bootstrap elements for the views, all on a node.js server using a MongoDB Database.
  - All communication between front and backend is achieved using WebSockets - Namely the Socket.io library.
  - Feel free to make an account and check out the latest stable version at tabletophelper-bengineering.rhcloud.com

- **Multiplayer Web Game (in progress)** *'A simple game to test multi-user interaction'*
  - Created a web based multi player video game using HTML 5 canvas with JavaScript.
  - This game allows a number of users to connect to a single world, and all actions a player can perform are replicated on the other players machines using Socket.io WebSocket communication.
  - Movement is synchronized to ensure the world is displayed accurately to other users.
  - Though this game is still not complete, most of the logic (including everything mentioned here) is complete, and the latest stable version can be seen at webgame-bengineering.rhcloud.com

- **Chat application** *'Using WebSockets to their full potential'*
  - A chat application built around WebSocket communication.
  - Designed to have low data overhead and low latency.
  - Runs using a Node.js server, storing messages in a MySQL database.

Education

- **University of Waterloo** **Waterloo, Canada**
  Honors Software Engineering *2013–Present*

- **Goransonsska High School** **Sandviken Sweden**
  Engineering Program *2010–2013*

Technical skills

- **Programming Languages:** Proficient in: C, C++, C#, Java, JavaScript (AngularJS, Node.js), HTML and CSS
  Also basic ability with: PHP, Arduino Programming, VHDL.

- **Technologies and Frameworks** AngularJS, Node.js, Socket.io, Jquery, MongoDB, MySQL, Transact SQL.

- **Tool Skills:** Git, Team Foundation Server, Microsoft Visual Studio, Eclipse IDE, Microsoft office tools.