Andrew Hassan

4A Computer Engineering

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SKILLS

- Excellent communication and teamwork skills developed from working in agile development teams of varying sizes

- Great leadership and initiative skills developed through my software product lead role at BlueRover

- Strong analytical and problem-solving skills obtained through designing and developing full-stack applications

- Highly motivated and eager to expand my skill-set

TECHNICAL PROFICIENCY

Programming Languages: Javascript, Ruby, C#, Java, Python, C, C++

Software Technologies: Node.js, sails.js, Ruby on Rails, WebSockets, backbone.js, d3.js, snap.svg, git, MySQL

Design Technologies: Photoshop, Illustrator, Balsamiq

WORK EXPERIENCE

Product Lead, BlueRover   Jan - May 2014

- Designed and developed a full-stack web application using Node.js to collect and dynamically process remote sensor data in realtime

- Built multiplexing library on top of socket.io to minimize open WebSocket connections

- Created all graphics and UI elements and implemented my designs using modern web technologies such as snap.svg and d3.js

Software Engineer, Vidyard   Jan - May 2014

- Implemented a unified Javascript API so that clients can interact with both Flash and HTML5 video players

- Optimized page load speeds by eliminating 20% of unnecessary CSS and configuring Rails's Asset Pipeline

- Full-stack web development using Ruby on Rails

Software Engineer, BlueRover   May - Aug 2013

- Created best-guess algorithm to solve the NP-hard problem of optimizing the cost of operating SIM cards

- Developed a query language that takes user queries to collect and aggregate data using the BlueRover Web API

- Created rich web data graphics using Javascript libraries such as d3.js

Software Developer, Desire2Learn   Sept - Dec 2012

- Utilized Desire2Learn's proprietary framework and .NET libraries to develop a web backend that processes files in the background, as well as a front-end web interface for clients.

- Used web development tools such as Fiddler to test, debug, and improve the performance of the file processor.

Software Developer, Desire2Learn   Jan - April 2012

- Leveraged Desire2Learn and Google APIs to create a book management plugin for instructors to administer course material

- Streamlined the interface for Desire2Learn's Keytool service

EDUCATION

Candidate for Bachelor of Applied Science, University of Waterloo
Honours Computer Engineering

Relevant Educational Experiences:

- *Databases:* Designed and implemented a doctor-patient social network and optimized the database queries

- *Computer Networks:* Learned about and implemented low-level networking concepts such as packet routing

- *Cooperative and Adaptive Algorithms:* Learned about and utilized various adaptive algorithms to generate optimal, or close to optimal, solutions for NP-hard problems

PERSONAL PROJECTS AND INTERESTS

Programming

Github: www.github.com/andrewhassan

- Used a Raspberry Pi to create a wireless router using standard network tools such as `iptables` and `hostapd`

- Developed a web app called "Wikiwalk" that graphically shows the relationship between Wikipedia articles in the 2013 {sortable} Hackathon

Music

- Write and play music for piano

- Remix songs and DJ

Other Interests

- Gaming

- Cars and automotive accessories