Master of Mathematics,
Bachelor of Computer Science
University of Waterloo

# JAYANTH KOTTAPALLI

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## Technical Adeptness

- Languages: C, C++, SQL, PHP, Shell, Racket (Scheme), Bash, Makefile, Javascript, HTML
- Frameworks: jQuery, Node.js, MKS Integrity, AJAX, JSON, SOAP
- Tools: CVS, Git, Perforce, Vim

## Work Experience

**BlackBerry Limited** **Software Tools Developer – Intern** **Sept – Dec 2012**

- Architected web-based interfaces for level-1 support & administration of BlackBerry's production tools, decreasing the response time for in-house customers significantly
- Programmed automation scripts reminding users of pending requests that require action, eliminating the need for manual correspondence
- Engineered backward compatible code for integrating both database and web service calls together to maintain data consistency

**BlackBerry Limited** **Software Support Specialist – Intern** **Jan – April 2012**

- Streamlined the support and administration process by maintaining detailed documentation of the support process
- Expedited support responses and reduced the response time from over 3 hours to less than 30 minutes
- Increased support efficiency by implementing automation scripts that service simple administration requests

## Education

**Waterloo, ON, Canada** **University of Waterloo** **May 2014 – on going**

- Candidate for Master of Mathematics – Computer Science
- Graduate Coursework: Distributed & Network Centric Computing, Cloud & SW Defined Networking

**Waterloo, ON, Canada** **University of Waterloo** **Sept 2009 – Dec 2013**

- Bachelor of Computer Science, Honours with Business Option $4^{th}$ year GPA: 3.57/4.0
- Undergraduate Coursework: Distributed Systems; Computer Networks; Operating Systems; Algorithms; Concurrent & Parallel Programming; Object-Oriented Software Development; Computer Security & Privacy

**Certified CompTIA A+ general technician** **2007**

## Projects

**Backend for iOS Mobile app** **CrowdCycle** https://github.com/nexus-uw/crowdcycle-backend

- Designed the software architecture for implementation
- Implemented the backend API for the client-server calls to access the database using Node.js for framework
- In collaboration with 3 students, created a detailed design document highlighting design choices and software styles used

**Remote Procedure Call** **Evaluation: 105%**

Implemented a simplified version of Remote Procedure Call that simulates multiple clients/servers and a single binder.

- Developed the RPC system based on the functionality required using TCP/IP for socket programming
- Implemented the system using OOP in C++ such as inheritance and virtual class functions
- Designed the process of marshalling and un-marshalling of data between the RPC entities using C pointers
- Designed an efficient database system which includes caching for the binder and the server to keep track of various details
- Compiled the code for the RPC system into a static library to be used for marking purposes

## Assignments

**WLPP language (subset of C++) compiler** **Evaluation: 100%**

- Implemented a LR-1 and a LL parser along with a lexical analyzer
- Designed an efficient WLPP to MIPS compiler in C++
- Attained 20th rank in code efficiency out of over 250 students