

He Nan (Tony) Li

3A Computer Science, Digital Hardware Option

hn3li@uwaterloo.ca

+1 (778) 861 7378

<http://tonyli.me>

www.linkedin.com/in/henan-li

www.github.com/mysterytony

Qualifications

Proficient in C/C++, Java, C#, HTML/CSS, SQL, Objective-C and JavaScript.

Working knowledge in J2EE, Tomcat, Hibernate, ASP.NET, Entity Framework, Service Bus, SignalR, SQL Server, NodeJS, Angular, React, Cordova Ionic, algorithm design and network security.

Extensive experience with git, agile SDLC and SOLID design principles.

Education

University of Waterloo

Candidate for Bachelor of Computer Science, Honours, Digital Hardware Option

Excellent Academic Standing: 3.9 GPA

Awards: President's Scholarship of Distinction, Term Dean's Honor's List, Canadian Computing Competition Top 25% in Senior Division

Experience

BDO Canada LLP

May 2017 – Aug 2017

Software Engineer Intern

- Designed and implemented performance-critical software with PaaS architecture using ASP.NET, C#, Azure, and Angular. Utilized 130 SQL databases, Azure Service Bus and Azure Key Vault to ensure always-on encryption and data independence.
- Improved search efficiency through memory caching and indexing. Simplified search expression and optimized LINQ expression.
- Performed penetration testing with SqlMap and ZAP with reference to OWASP Top 10 Projects. Prepared a comprehensive report outlining security vulnerabilities and recommended solutions. Implemented CSRF attack prevention with anti-forgery token.
- Prepared extensive design documents detailing system architecture, database schema and sequence diagram to translate business requirements into technical solutions.

Bluejay Network Inc.

Aug 2016 – Dec 2016

Software Engineer Intern

- Developed a cross-platform mobile application using Cordova, Ionic and AngularJS.
- Implemented a backward-compatible RESTful API using Java EE, Hibernate, Spring MVC, Maven and MySQL. Investigated server errors and provided hotfixes to the production server.
- Planned, prepared and executed agile sprints and scrums with colleagues to push the project releases within scheduled timeframe.

The University of British Columbia

May 2014

Software Engineer Intern

- Collaborated and brainstormed on an iOS application with an immunology professor for a community project. Drafted UI mock-ups and navigation transitions.
- Designed user interface, logics and models. Implemented with Objective-C in Xcode. Applied multithreading to provide smoother user experience.

Projects

KaleidoScope *Content Sharing Application (github.com/AlephTeam/KaleidoScope)*

Aug 2017 – Present

- A cross-platform application (Android and web) designed to simplify file and content sharing between devices.
- Built with NodeJS, Socket.IO, MySQL and Java; hosted on Azure.

ExpressCPP *Cross-platform Server framework built with C/C++ (github.com/AlephTeam/ExpressCPP)*

July 2017 – Aug 2017

- Built with Winsock2 library from Windows and socket library from Unix to achieve cross-platform and consistent interface.
- Features include the ability to create controllers, middleware and custom error handlers on a specified port.
- Implemented simple view engine with Razor-like syntax to allow html rendering.

MarkX *A Markup Language Compiler (tonyli.me/markx)*

May 2017 – July 2017

- Implemented in modularized and object-oriented architecture with MEAN stack to provide extensible and maintainable solution.
- Applied LR1 parsing to achieve linear time efficiency.
- Took the initiative to organize a team of software developers to implement MarkX.

Personal Blog *(tonyli.me)*

Jan 2016 – Present

- Built with HTML/CSS, Angular and material design; hosted on Github.
- Posted lecture notes and blogs in Markdown. Compiled markdown and math expressions to html and displayed in Angular module.