

Joshua Lee

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Skills

Languages: Java, JavaScript/TypeScript, HTML, CSS, C#, C++, Python, ARM Assembly

Tools & Frameworks: Android SDK, Node.js, Angular2, Express, MongoDB, Travis CI, SQL, Firebase, Git

Experience

D2L

Toronto, ON

Software Engineering Intern

Jan – Apr. 2017

- Restructured Mongoose schemas resulting in an 85% reduction of memory usage consumed by the server
- Wrote a token based authentication service following OAuth 2.0 protocol on both web and mobile platforms
- Designed a polling service which monitored the response of several Brightspace APIs for changes in state, pushing all necessary data to the appropriate services
- Allowed for a wide range of user input by training the natural language processing engine provided by [Wit.ai](#)
- Setup continuous deployment pipeline with automated unit testing using Travis CI, Bash, and Mocha
- Developed a cross-platform mobile application using the Ionic framework alongside the use of Cordova plugins, leveraging the device's native capabilities

TD Innovation Lab

Waterloo, ON

Solutions Developer

May – Aug. 2017

- Followed Google Design Sprint principles to develop applications through ideation, wireframes, and prototypes while maintaining user centric design
- Wrote a singleton cache which was utilized to store persistent data, increasing the speed of saving and loading data by over 55% as well as reducing the amount on-device storage used by 100%
- Developed application for the Microsoft HoloLens using Unity3D, HoloToolKit and Blender3D
- Utilized the HoloLens's spatial mapping capability to generate a realtime mesh of the surrounding environment

Projects

Blabble (<https://github.com/joshlee96/blabble>)

- Developed virtual blackboard which enables users to anonymously post and share their thoughts
- Designed API to be RESTful and modular using Node.js and Express and ensured atomicity in all MongoDB operations

UWaterloo Reddit Bot (<https://github.com/joshlee96/redditbot>)

- Wrote a reddit bot in Python that automatically responds to comments in the UWaterloo subreddit upon the detection of certain phrases

Task Plus (<https://github.com/joshlee96/taskplus>)

- Built an Android task managing application designed to help people stay organized via the use of "task groups"
- Stored persistent data using the Realm database, utilizing its ability to query and store data efficiently

Education

University of Waterloo

Waterloo, ON

Bachelors of Applied Science – Computer Engineering

2014 – Present

Expected June 2020