

Jay Shi

✉ jay.shi@uwaterloo.ca
2B Mechanical Engineering
portfolio: <https://jayshi.site>
github: <https://github.com/jay-shi>

SKILLS

Languages: JavaScript, TypeScript, Java, HTML5&CSS3, SQL, C/C++, RobotC

Frameworks: Angular4, NodeJS, ExpressJS, SpringBoot, JQuery, Bootstrap, Jasmine, SinonJS

Management Tool: NPM, Maven, Git

EXPERIENCE

Software Developer

May. 2017 – Aug. 2017

TD Bank Group – Innovation Enterprise Architect Team

- Implemented NodeJS server functions that integrate with OpenID security flow
- Developed responsive Angular4 web frontend and Java backend for 5000+ TD employees to use
- Wrote unit tests on both web frontend application and server

Software Developer

Sept. 2016 – Dec. 2016

TD Bank Group – Innovation Enterprise Architect Team

- Developed Angular2 web application as a Proof of Concept to help team demonstrating ideas
- Developed Hybrid Android App to present innovative business ideas in front of 200+ TD Enterprise Architects during TD Enterprise Architect Channel Annual Town Hall Meeting

Research Assistant

Jan. 2016 – Apr. 2016

University of Waterloo - Mechanical and Mechatronic Engineering Department

- Solved robotic arm crushing problem by overriding some embedded functions
- Researched and documented Barrett WAM™ Arm (robotic arm) and its embedded functions

PROJECTS

TD API Payment Project - Web Frontend Full Development Cycle

May 2017 – July 2017

- Built responsive frontend website with **Angular4**, **TypeScript**, **Bootstrap** and **CSS3**
- Wrote BDD unit tests and generated code coverage for frontend using **Karma-Jasmine** and **Istanbul**
- Set up continuous integration (**CI**) configuration to automate building and testing
- Utilized Ahead-of-Time (**AoT**) and production mode compilation to optimize performance

TD API Payment Project - OpenID Server Development and Test

July 2017 – August 2017

- Collaborated with team to create server that handles **JWT** using **NodeJS** and **ExpressJS**
- Built service functions that handles JWT interaction (e.g. certificate generation and token verification)
- Implemented error handling functions and server REST endpoints
- Wrote unit tests and generated code coverage using **Mocha**, **Chai**, **SinonJS** and **Istanbul**

TD API Payment Project - Web Backend Development

July 2017

- Built Web BFF (Backend For Frontend) that handles integration with Frontend and PingFederate using **REST** architecture, **Java**, and **SpringBoot**
- Built API endpoints for frontend to consume using SpringBoot
- Simplified Azure deployment process by using Maven and npm scripting