ZHONGHAO LU

(+1)780-707-5818 ⋄ zlu@ualberta.ca ⋄ Edmonton, Canada (Open to Relocate)

EDUCATION

University of Alberta, Canada *September 2016 - June 2020*
BSc with Specialization in Computing Science GPA: 3.5
Faculty of Science Undergraduate Scholarship (2018)

TECHNICAL SKILLS

Programming Languages	Java, JavaScript, Python, C#, C, HTML, CSS
Web Development	Express, React, Node.js, GraphQL, Django, Flask, Heroku
Database Management	MongoDB, PostgreSQL, SQLite, MySQL
Other Tools	Bash, Git & GitHub, ROS, PyTorch, OpenGL, OpenCV, LaTex, AWS

WORK EXPERIENCE

Hole School of Construction Engineering, Edmonton *January 2019 - August 2019*
Software Developer Intern

- On-site internship with Agile development processes, initiated **Object-Oriented Design** concepts and **MVC** patterns in designing projects
- Used **.NET** framework and **C#** to develop enterprise applications for solving civil engineering problems
- Utilized **Revit API, LINQ, Json.NET** and multi-threaded programming to improve project performances and code maintainability by **30%**
- Optimized a BIM project by applying **Dynamic Programming**, provided multiple solutions for users

PROJECTS

SpongeBook (Web App, https://sponge-book.herokuapp.com/)

- Conceptualized and developed a distributed web-based social networking application using **Django Rest Framework** and MVT pattern
- Implemented **RESTful APIs** with **JWT** authentication and other permission functionalities, applied **Unit Tests** on endpoints thoroughly
- Utilized **Travis CI** to build and test pull requests automatically, automated deployment phase on **Heroku**, served the Front-End and the Back-End from the same host by using WhiteNoise middleware
- Designed web interfaces with **React**, **AntDesign**, and managed application state with **Redux**

AutoSurveys (Web App)

- Built Back-End server with **Express.js**, utilized **Passport.js** middleware to handle Google **OAuth** authentication flow
- Accomplished in setting up **MongoDB Atlas** for storing clusters in the cloud, modelled application data using **Mongoose.js**
- Achieved surveys delivery features using **SendGrid**, and set up webhooks for getting feedback
- Employed the use of **Redux** and **Redux Form** for managing form states, built concise user interfaces with **Materialize**

MedicalTracker (Android App)

- Partnered with a team of 5 to design a UML class diagram and develop an **OOP** application using **Java** and **Andriod** API
- Employed the use of **Google Maps API** provided by Google Cloud Platform for implementing location services and functions
- Accomplished in using **Elasticsearch** search engine for querying information while storing data on an HTTP web interface