

ZHONGHAO LU

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EDUCATION

University of Alberta, Canada

September 2016 - June 2020

BSc with Specialization in Computing Science

GPA: 3.5

Dean's Honour Roll (2018, 2019)

Faculty of Science Undergraduate Scholarship (2018)

TECHNICAL SKILLS

Programming Languages

Python, Java, C#, C, C++, JavaScript, HTML, CSS

Database Management

SQLite, MySQL, PostgreSQL

Web Development

Django, React, Redux, Flask, Node.js, Express, Heroku

Tools & Technologies

Shell/Scripting, Git/GitHub, Pytorch, OpenGL, OpenCV, ROS

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 Windows applications for solving civil engineering problems
- Utilized Revit API, LINQ and multi-threaded programming to implement process improvement initiatives and solutions

PROJECTS

SpongeBook (Web App)

- Conceptualized and developed a distributed web-based social networking application using Django Rest Framework and MVT pattern
- Designed web interfaces with JavaScript libraries React, Ant Design
- Implemented RESTful APIs with authentication and permission functionalities, applied Unit Testing 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

FrameX (Windows App)

- Utilized C# and .NET to achieve extra BIM features on Autodesk Revit
- Optimized sheathing feature by applying Dynamic Programming, reduced material usage by 15%
- Used Json.NET for serialization and de-serialization which reduced code by 30% and improved maintainability progressively
- Applied user interface design adaption for different devices, setup app licensing using Intellilock

MedicalTracker (Android App)

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