**ZHONGHAO LU**

Computer Scientist

New graduated solution-oriented computer scientist with a variety of experiences in software development, data science, and robotics.

**EDUCATION**

**Bachelor of Science with Specialization in Computer Science**

University of Alberta

*09/2016 – 04/2020 GPA:3.5*

**WORK EXPERIENCE**

**Software Developer Intern**

Hole School of Construction Engineering

*01/2019 – 08/2019 Edmonton, Alberta*

Achievements / Tasks

* Used .NET and C# to develop Windows platform applications for civil engineering solutions.
* Worked within an 8-person team to discuss solutions and refine project design.
* Reviewed pull requests, tested new features, and fixed bugs.

**PROJECTS**

**FrameX**

* Composed a solution with the object-oriented design concept that met our clients’ needs.
* Programmed project with C# and .NET.
* Saved data using JSON after serialization.

**Medical Tracker**

* Developed an android application using Java within a 5-person team.
* Implemented location functions using Google maps API provided by Google Cloud Platform.
* Stored data on an HTTP web interface and queried information with Elasticsearch search engine.

**Classification and Bounding Box Detection on MNISTDD**

* Trained VGG like and Fast RNN like neural networks with 60000 images from MNISTDD dataset on Google Colab GPU using Pytorch.
* Classification accuracy of 98.87% and bounding box detection of 88.42% were obtained.

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**SpongeBook**

* Designed a distributed web-based social networking application.
* Developed the project using Django Rest Framework and MVT pattern.
* Built web interfaces with JavaScript library React, Ant Design, HTML and CSS are also applied when applicable.
* Deployed to the Heroku platform.

**TECHNICAL SKILLS**

**Languages**

Proficiency in Python, C#, Java, C, SQL

Familiar with C++, JavaScript, HTML, CSS.

**Database Management**

Familiar with SQLite, MySQL

**Robotics**

Programming Robotics with ROS, processing sensor data using OpenCV and NumPy, creating complex robot behaviours using state machine architecture.

**Other**

OS, Linux, Git, Pytorch, OpenGL, Neural Networks, Machine Learning, Reinforcement Learning, Cloud Computing.

**HONOURS**

**Faculty of Science Undergraduate Scholarship**

*University of Alberta 2019*

**Dean’s Honour Roll**

*University of Alberta 2019*

**Dean’s Honour Roll**

*University of Alberta 2018*

**INTERESTS**

**Cloud Computing**

**Distributed System**

**Robotics**