ZHONGHAO LU

Computer Scientist

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

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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.

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