

Yizhou Zhao

DATA SCIENTIST · MACHINE LEARNING ENGINEER

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Summary

Current graduate student at the University of Alberta Multimedia program. An enthusiastic learner of machine learning, computer graphics and game design. Having 3+ years experience of learning and implementing machine learning / data mining techniques. Implemented several machine learning projects in areas of auto augmentation, image recognition, and reinforcement learning.

Skills

Machine Learning Packages	Tensorflow, Pytorch, Pandas, Numpy, Scipy, sklearn, Matlab, cv2
Programming	Python, Javascript, C/C++, C#, HLSL, SQL
Web Application	Back-end: Django, REST API, Flask. Front-end: Bootstrap, HTML5, CSS
Game/Artistic Design and Game Development	Unity Engine, Shader programming, Photoshop, Blender

Experience

University of Alberta

Edmonton, Canada

TEACHING ASSISTANT

Jan. 2020 - Apr. 2020

- Lab teaching assistant in course of GPU programming (CMPUT 382). Two labs per week.
- Implemented marking script for assignments.

University of Alberta Chinese Students and Scholars Association

Edmonton, Canada

VICE PRESIDENT OF PROMOTION & INFORMATION TECHNOLOGY

May. 2016 - May. 2017

- Designed event posters, banners, and "New Students Handbook" using Photoshop and InDesign.
- Re-designed and maintained the official website of UACSSA.

Education

University of Alberta

Edmonton, Canada

B.S. IN COMPUTING SCIENCE IN SPECIALIZATION WITH DISTINCTION / DEAN'S LIST

Sept. 2015 - May. 2019

- Mainly focus on machine learning and data mining courses.
- Learned multiple skills and tools beyond my major program, especially in artistic design.

University of Alberta

Edmonton, Canada

M.S. IN COMPUTING SCIENCE MULTIMEDIA PROGRAM

Sept. 2019 - May. 2021

- Extended knowledge of machine learning and computer vision.
- Explored areas of multimedia such as computer graphics and virtual reality.

Projects

Reinforcement Learning Based Data Auto-Augmentation

Edmonton, Canada

[Github.com/JJack27/Auto-Augment](https://github.com/JJack27/Auto-Augment)

Sept. 2019 - Dec. 2019

- Designed the experiment, including tasks such as data preprocessing procedures, data sample selections, and algorithm chosen.
- Implemented the main structure of the program, including components such as data iterator, and RNN controller (via tensorflow 1.15) which learns the policies of augmentation.

Ultrasound Noise Removal in Ultrasound Images

Edmonton, Canada

[Github.com/YingnanMa/Noise-Removal-Techniques-in-Ultrasound-Images](https://github.com/YingnanMa/Noise-Removal-Techniques-in-Ultrasound-Images)

Sept. 2019 - Dec. 2019

- Implemented multiple algorithms for comparison. Including fuzzy image filter and adaptive Gaussian filter.
- Collected ultrasound image data from portable ultrasound device.

Distributed Social Network

Edmonton, Canada

[Github.com/sajjadhaider/CMPUT404-Project](https://github.com/sajjadhaider/CMPUT404-Project)

Jan. 2019 - May. 2019

- Implemented interactive web pages using HTML5, CSS, and Javascript, which allows users to create, view, and comment on posts.
- Implemented partial of the back end including data model design and front-end-back-end interface. Also enabled the friends-of-friends relationship across different origins.