

OBJECTIVE

- Aiming to find Machine Learning internship positions with applied research. Especially interested in Computer Vision related topics or projects using generative models such as Generative Adversarial Networks.

EDUCATION

MSc in Applied Computing

September 2022 – December 2023 (expected)

University of Toronto, Department of Computer Science

Courses (ongoing): Introduction to Machine Learning, Computational Imaging, Neural Networks and Deep Learning, Natural Language Computing.

B.S. in Computer Science and Technology

September 2018 – June 2022

Beijing Institute of Technology, School of XuTeli

EXPERIENCE

Beijing Institute of Technology, Beijing, China

December 2021 – May 2022

Undergraduate Graduation Design: *Research on Domain Generalization Image Classification Based on Gaussian Kernel*

- Proposed a novel method addressing domain generalization image classification problem by utilizing gaussian kernel to extract the high-frequency information from the image, and implemented this method with PyTorch.
- Achieved 6.2% and 4.52% mean classification accuracy improvement on Digits-DG and PACS dataset respectively compared with the baseline method, which were competitive results compared to state-of-the-art methods.
- Wrote a thesis by myself and defended it with five professors from the Department of Computer Science.

North Carolina State University, U.S.

July 2021 – August 2021

Remote Research Intern: *Balancing real-world inverted pendulums via virtual training with RL*

- Implemented Policy Gradient, Actor Critic, and Proximal Policy Optimization with PyTorch and successfully balanced the single inverted pendulum in a modified gym environment which provided a more realistic simulation of physical laws.
- Successfully balanced the double inverted pendulum by using Actor Critic in a modified gym environment.
- Successfully managed to directly apply our trained model in the gym to balance a real single inverted pendulum in the lab.

Beijing Institute of Technology, Beijing, China

November 2020 – December 2020

Undergraduate Research: *Theoretical understanding and image generation applications with GAN*

- Implemented existing works on generative adversarial networks with PyTorch, including DCGAN, WGAN, Cycle GAN.
- Wrote a report to analyze the causes of instability of training GAN from the aspect of loss function, based on formula derivation and explained the advantages of the loss function used in WGAN.

ADDITIONAL QUALIFICATIONS

Global Education, Academics, and Research Skills Virtual Program (GEARS)

July 2021 – August 2021

North Carolina State University, U.S.

TECHNICAL SKILLS

- Programming Languages: C, Java, Python
- Framework & Tools: PyTorch, Matlab