# XIAO Yang

Tel: +1(672)558-9633 Email: xiao.yang3@northeastern.edu
Add: 9188 Hemlock Dr., Richmond, BC Canada, V6Y4J7

## EDUCATION

**Northeastern University**, Vancouver, Canada Jan. 2023 - Jan.2025

- Master candidate, **Computer Science**

ShenYuan Honors College, **Beihang University**, Beijing, China Sept. 2015 - July 2019

- Bachelor of Engineering (Hons.), Mechanical Engineering ( experimental class)

## COMPUTER SKILLS

**Programming Languages**: Python, C++, Java, MATLAB, SQL, R, Typescript

**Frameworks and tools**: TensorFlow, PyTorch, Linux, Docker, Git.

## EXPERIENCE

Full-time Computer Vision Algorithm Engineer, **ZMO.AI**, Shenzhen May 2021 - Dec 2022

- Developed and built an automatic virtual clothing try-on system using Generative Adversarial Network (GAN) and MLS (Moving Least Square)-based image deformation algorithm;
- Studied and optimized the performance of human pose transfer algorithm and improved the existing algorithm.

Intern, Computer Vision Algorithm Engineer, **DiDi**, Beijing July 2020 - May 2021

- Evaluated and optimized the effect of image segmentation algorithm in lane line segmentation, trained a segmentation model that turned out to rank 6/94 on the ApolloScape benchmark;
- Developed an image reflection detection and de-reflection algorithm for image quality evaluation using the respective strengths of GAN and LSTM, greatly removing reflective areas from video frames;
- Studied algorithms related to contrastive learning and semi-supervised learning, designed a pipeline that combined the EM algorithm with semi-supervised learning to improve the performance of existing semi-supervised learning algorithms in actual classification.

Intern, Computer Vision Algorithm Engineer, **4paradigm**, Beijing Dec. 2019 - July 2020

- Investigated and reproduced cutting-edge image segmentation algorithms in recent years, built a segmented code base using the reproduced algorithms, performed algorithm iteration simultaneously on multiple public datasets;
- The reproduced algorithms achieved 41.05% and 57.7% MIoU on COCO-Stuff and PASCAL-Context (two well-known public datasets), reaching and surpassing SOTA levels at that time;
- Developed a product interface capable of automatic training and inference of models.

Intern, Image Processing Algorithm Engineer, **Haier Uhome**, Beijing June 2019 - Sept. 2019

- Independently developed a same-source image retrieval algorithm based on existing image feature extraction and deep learning technologies, winning 3$^{rd}$ place (Same-Source Image Retrieval Category) in China Artificial Intelligence Competition;
- Conducted iterative development of a multi-attribute face recognition algorithm for smart homes through multi-task learning.

Intern, Deep Learning Algorithm Engineer, **ZhenRobotics**, Beijing Sept 2018 - Dec.2018

- Learned to use ROS, and embedded a monocular camera-based target detection algorithm in ROS;
- Developed an obstacle avoidance and bypass algorithm for robots against different categories of obstacles based on the category and location information of objects detected respectively by the monocular camera and LiDAR.

## ACADEMIC EXPERIENCE

Member, **Medical Robotics Laboratory**, Beihang University Dec. 2018 - May 2019

- Studied depth estimation to facilitate the work of doctors who used the Da Vinci Surgical System to perform minimally invasive surgery.