

XIAO YANG

+1 (672) 558-9633 | xiaoyang-buaa@outlook.com | github.com/rorschach-xiao

EDUCATION

Northeastern University

Master of Science, Computer Science

Vancouver, Canada

Jan. 2023 – Aug. 2024

ShenYuan Honors College, Beihang University

Bachelor of Engineering (Hons.), Mechanical Engineering (Experimental Class)

Beijing, China

Sept. 2015 – July 2019

TECHNICAL SKILLS

Languages: Python, C++, Java, MATLAB, SQL, R, TypeScript

Frameworks & Tools: TensorFlow, PyTorch, Linux, Docker, Git, Spark, Hadoop

EXPERIENCE

Senior Machine Learning Engineer

TikTok Technology Canada Inc.

Vancouver, Canada

Apr. 2024 – Current

- Spearheaded and scaled TikTok's automated moderation systems, including VLM-based multimodal foundation models and NN-based dense-free Gandalf Framework, to detect and mitigate high-risk content at global scale.
- Built a "fast go-live" pipeline and AutoML iteration system, reducing model deployment time from weeks to days.
- Improved key safety metrics, achieving **+15.5%** action precision gain and lowering overkill rate by **14%**.

Computer Vision Algorithm Engineer

ZMO.AI

Shenzhen, China

May 2021 – Dec. 2022

- Developed an automatic virtual clothing try-on system leveraging Generative Adversarial Networks (GAN) and MLS (Moving Least Square)-based image deformation algorithms.
- Studied and optimized the human pose transfer algorithm, improving upon existing approaches.

Computer Vision Algorithm Engineer Intern

DiDi

Beijing, China

July 2020 – May 2021

- Evaluated and optimized image segmentation for lane line detection; trained a model that ranked **6th out of 94** on the ApolloScape benchmark.
- Developed an image reflection detection and de-reflection algorithm for video quality evaluation, combining the strengths of GAN and LSTM to remove reflective artifacts from video frames.
- Designed a pipeline integrating the EM algorithm with semi-supervised learning, improving classification performance of existing semi-supervised methods in real-world settings.

Computer Vision Algorithm Engineer Intern

4Paradigm

Beijing, China

Dec. 2019 – July 2020

- Investigated and reproduced state-of-the-art image segmentation algorithms, building a unified codebase that enabled simultaneous iteration across multiple public benchmarks.
- Reproduced algorithms achieving **41.05%** MIoU on COCO-Stuff and **57.7%** MIoU on PASCAL-Context, matching or surpassing SOTA performance at the time.
- Developed a product interface supporting automated model training and inference.

PUBLICATIONS

Do you actually need an LLM? Rethinking language models for customer reviews analysis

Artificial Intelligence Review, 2025

- Led a comparative study of small and large language models for customer review analysis and proposed a context-enhanced hybrid framework, showing that fine-tuned small models can outperform LLMs on domain-specific correlation tasks while significantly reducing sentiment analysis computation cost.

UNIVID: Unified Vision-Language Model for Video Moderation

ACL Industry Track, 2026

- Co-authored UNIVID, a unified vision-language model that replaces thousands of fragmented video moderation classifiers with a single caption-driven backbone, cutting violation leakage by 42.7% and overkill rate by 37.0% while enabling scalable safety and advertising applications on global short-video platforms.