RUOTIAN ZHANG

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EXPERIENCE

Trendii
Machine Learning Engineer - (Full-time)

📅 Jan2022 - Current　　📍 ACT/Melbourne, Australia

Trendii is a MarketingTech startup that enables the contextualised advertisement placement at scale.

- Delivered an object detection and reverse image search solution for Trendii's contextualized advertisement in the domains of fashion and homeware.
- Designed and built datasets for detection and image retrieval models, including data crawling, annotation, cleaning, and analysis.
- Led end-to-end AI research and development, including model research, UAT environment building, model training, evaluation, and deployment.
- Established efficient and reproducible deep learning model training, experiment tracking, and model containerization and deployment.
- Significantly reduced latency by implementing a product database via Milvus and enabling ANN search.
- Developed creative visualization apps for the ad ops team to monitor real-time generated ads.
- Implemented APIs to extend techniques to video with features such as "pause to shop" and "rolling ads".
- Collaborated closely with the Engineering team to ensure smooth model deployment, product import, and resolved inconsistencies between production and AI visualization.

Singapore University of Technology and Design
Research Intern - (Part-time)

📅 Jun2020 - Jan2021　　📍 ACT, Australia

- Built a data synthesis engine to generate data for fine-grained person re-identification under different environments.
- Evaluated commonly used re-ID methods on the built dataset for benchmarking purposes.
- Designed a CNN-based method to learn discriminative features from local regions of a person, such as body parts and face, for fine-grained person re-ID.
- Developed a novel architecture based on Vision Transformer, achieving state-of-the-art performance on several benchmarks.

CERTIFICATIONS

- AWS Certified Solutions Architect - Associate | Jul2023
- AWS Certified Cloud Practitioner | Jun2023

EDUCATION

Master of Machine Learning and Computer Vision
Australian National University

📅 Jan2020 - Jan2022　　📍 ACT, Australia

- Academic Tutor for Introduction to Machine Learning, responsible for designing, reviewing, and marking assignments.
- Research Intern at Singapore University of Technology and Design on a fine-grained Person-reID project.

Master of Optical Engineering
NanKai University

📅 Sept2016 - Jun2018　　📍 TianJin, China

Bachelor of Applied Physics
HeBei University

📅 Sept2012 – Jun2016　　📍 HeBei, China

TECHNICAL SKILLS

Python　Pytorch　Machine Learning
Deep Learning　Computer Vision
Data Analysis/ Visualisation
Git/ Github　Docker/ Kubernetes
RDBS/ SQL　Nosql/ MongoDB
Linux/ Shell　Flask　FastAPI
Streamlit/ Dash　Milvus
Web Scraping　Scipy/ Sklearn
Numpy/ Pandas/ Matplotlib
Cloud/ AWS
Google Workspace/ MS Office/ LaTeX

PUBLICATIONS

"FG-PersonX: A Dataset for Fine-Grained Person Re-identification". CVPR 2021 FGVC Workshop.
Ruotian Zhang, Yuchi Liu, Xiaoxiao Sun, Vishal Choudhary, Hock Beng Lim, Ngai-Man Cheung