

# SUN WENHAO

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## EDUCATION

### Postgraduate Research Student (Ph.D. Track)

School of Computer Science and Engineering, Nanyang Technology University

Jan 2024 - Present

*Singapore*

- Multi-modal generation, 2D/3D computer vision, and video processing, among others.

### Master of Science

Department of Statistics and Data Science, National University of Singapore

Jun 2019 - Jun 2021

*Singapore*

- CAP: 4.9/5.0
- Relevant modules: Bayesian statistics, time series, spatial statistics, deep learning, etc.

### Bachelor of Science

Department of Applied Mathematics, Tianjin University

Jun 2016 - Jun 2019

*Tianjin, China*

- GPA: 3.5/4.0 (Top 5)
- Relevant modules: mathematical analysis, functional analysis, abstract algebra, optimization, etc.

## EXPERIENCE

### Data Scientist

Lazada, Alibaba Group

Jun 2021 - Jan 2024

*Singapore*

- Spearheaded the creation of *Text/Image Guided Diffusion Models* to facilitate image generation.
- Pioneered the development of a *Multi-Modal Representation* system to enhance *Retrieval* capabilities.
- Led the successful implementation of a price recommendation solution utilizing *Causal Inference Models*.
- Designed and constructed *Data-Centric Machine Learning Pipelines*, leveraging innovative techniques such as dataset condensation and lifelong learning.

## PROJECTS

### Fashion Virtual Try-On

- Developed a state-of-the-art Virtual Try-On (VTON) system that seamlessly combines a lightweight warping module and a diffusion generation module to create visually pleasing images of a target model wearing reference garments.
- Devised a bootstrapping technique to gain the ability to generate a target image from a clothing try-on photo when only flatly fitting clothes are at hand.

### Imbalanced Clustering via EM-Boosted Eigen Selection.

*Master's Degree Dissertation*

### Unsupervised Data Condensation via Tensor Decomposition.

*Bachelor's Degree Dissertation*

## SKILLS

- **Software:** 🐍 Python, R, HiveQL, Linux, Git,  $\text{\LaTeX}$ , MS Office.
- **Deep learning libraries:** PyTorch, DeepSpeed, ⚡ Lightning, 😊 Transformers, TensorFlow, etc.
- **Language:** Chinese (Native), English (Fluent, GRE 324)
- **Others:** Chinese Citizenship, Singapore Permanent Resident (SPR)