Mingzhi Chen

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EDUCATION

Southern University of Science and Technology (SUSTech)

Shenzhen,

China

B.Sc. in Computer Science and Technology | GPA: 3.95/4.0 | Ranked 2/161

09/2022 -

06/2026

National University of Singapore (NUS)

Singapore

Summer Program in Computer Science | GPA: 4.0/4.0

06/2024 -

08/2024

RESEARCH EXPERIENCE

Mutual Information Guided Denoising Attack: Manipulating Semantic Consistency

07/2023 -

Present

SUSTech & Research Institute of Tsinghua University in Shenzhen

Supervised by Associate Prof. Ming Tang & Prof. Chun Yuan

- Designed multiple loss functions for adversarial attacks targeting restormer model, and identified a loss function with satisfying results.
- Reviewed performance on state-of-the-art denoising models, implemented 3+ base models for denoising backbone networks, and established evaluation metrics, including entropy, LPIPS, SSIM, and Rouge-L.
- Conducted ablation experiments to optimize and identify the best loss function and fine-tuned hyperparameters for improved performance.
- Developed code for large-scale attacks for 5 models across 5 datasets, ran attack experiments while tracking performance metrics, and optimized machine learning rate, optimizer settings, and components of the loss function.
- Paper submitted to CVPR 2025, currently under review (Co-first author).

SynSFDeblur: Synergistic Spatial-Frequency Network for High-Quality Image Deblurring 04/2023 – 12/2023

Research Institute of Tsinghua University in Shenzhen

Supervised by Prof. Chun Yuan

- Ran 10 SOTA networks, including DeblurGan-v2, DBGAN, MTRNN, DMPHN, SPAIR, and MIMO-UNET+, on multiple datasets, such as GoPro, HIDE, RealBlur-R, and RealBlur-J.
- Submitted to Pattern Recognition (4th Author).

Non-Linear Coded Computation for Distributed CNN Inference: A Learning-Based Approach 09/2022 – 09/2023

SUSTech

Supervised by Associate Prof. Ming Tang

- Successfully ran base models such as ResNet and VGG to evaluate accuracy without additional conditions.
- Implemented a distributed framework and observed an obvious decrease in classification accuracy due to information loss.
- Designed and implemented an efficient encoder-decoder structure combining MLP and convolutional layers to ensure accuracy, while maintaining a manageable size for the encoder and decoder, thereby optimizing runtime efficiency.

INTERNSHIP EXPERIENCE

Hangzhou Raycloud Technology Co., Ltd.

Hangzhou,

China

Algorithm Intern 07/2024 - 09/2024

- Designed a chatbot evaluation framework utilizing large models to assess commercial AI assistants for e-commerce.
- Developed evaluation metrics including emotional tone analysis and response accuracy, significantly improving merchants' chatbot selection processes.
- Contributed to quarterly revenue surpassing ¥10 million.

AWARDS & HONORS

- National Scholarship (Top 0.4%) | SUSTech | 2023 2024
- ICPC Programming Contest (Silver) | Hangzhou & Jinan Regional Sites | 2022
- L'Oréal Brandstorm Competition (International Excellence Award, Top 1%) | 2023
- International Collegiate Supercomputing Competition (2nd Prize) | 2024
- Guangdong Province Mathematical Modeling Competition (2nd Prize) | 2024

LEADERSHIP & ACTIVITIES

SUSTech Peer Mentor

09/2023 - Present

• Guided freshmen and peers on research, study strategies, and time management through one-on-one consultations.

SUSTech Student Representative

09/2022 - Present

• Represented students to communicate with university to address concerns and implement solutions.

SUSTech ACM Team

09/2022 -

12/2023

• Attended training sessions, took part in ICPC and CCPC programming contests, and won awards.

SKILLS

- **Programming Languages:** Python, C++, Java
- Frameworks & Tools: TensorFlow, PyTorch, OpenCV, Docker
- **English:** TOEFL 104 (R29/L27/S23/W25)