

# ZESHUAI DENG

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## 🎓 GENERAL INFORMATION

**Gender:** Male      **Date of Birth:** 1997, May 26      **Place of Birth:** Maoming, Guangdong, China  
**Home Address:** No. 382, Waihuan East Road, University Town      **Work Phone:** (+86) 183-1877-2343

## 🎓 EDUCATION

**South China University of Technology (SCUT), Guangzhou, China**      2019.09 – Present  
*Ph.D* in Software Engineering, expected June 2024, supervisor [Prof. Mingkui Tan](#)  
**South China University of Technology (SCUT), Guangzhou, China**      2015.09 – 2019.07  
*B.S.* in Software Engineering, supervisor [Prof. Mingkui Tan](#)

## ♡ HONORS AND AWARDS

**School Level Third Class Scholarship**      2016.10  
**National Youth Inspirational Scholarship**      2018.10

## 🎓 RESEARCH FIELD

**Research Interests:** Computer Vision, Super-Resolution, Model Compression and Acceleration

## ⚙️ PUBLICATIONS AND RESEARCH EXPERIENCE

**Closed-loop Matters: Dual Regression Networks for Single Image Super-Resolution**      2018.09 – 2020.05

- As the co-author, design a dual regression scheme to boost the training of super-resolution (SR) models. Theoretically, the proposed dual regression scheme alleviates the burden of training SR models, helping to obtain better SR models with better performance.
- The proposed method achieved state-of-the-art performance on five benchmark datasets.
- Accepted by CVPR 2020.

**Towards Lightweight Super-Resolution with Dual Regression Learning**      2020.10 – 2021.09

- As the co-first author, design a dual learning compression scheme to obtain lightweight super-resolution (SR) models. Equipped with the regression, our algorithm is able to accurately search a good model architecture layer-wise and then obtain a compact model with high performance.
- The proposed method is able to obtain lightweight SR models with better performance on five benchmark datasets.
- Accepted by TPAMI 2024 (co-first author).**

**Efficient Test-Time Adaptation for Super-Resolution with Second-Order Degradation and Reconstruction**      2023.03 – 2023.08

- As the first author, design a fast test-time adaptation for image super-resolution (SRTTA) for adapting any pre-trained super-resolution models to test domains under different distributions from that of training data.
- The proposed method achieved state-of-the-art performance on eight domains on average.
- Accepted by NeurIPS 2023 (first author).**

## 👤 INTERNSHIP AND ACADEMIC SERVICE

**Guangzhou Shiyuan Electronic Technology Company Internship.** Guangzhou, China      2020.09 – 2022.03

- Research Assistant, deploying algorithms into low-power devices to enhance the quality of online meetings.

**Advanced Institute of Information Technology Internship.** Shaoxing, China      2022.09 – 2023.07

- Research Assistant, developing super-resolution algorithms to reduce failures in online image processing systems.

## 🔧 SKILLS

- Programming: Python, Pytorch, Java, Matlab, C/C++
- Language: Chinese, English