

# Liang Kuang

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## Education

### Southern University of Science and Technology

Sept. 2021 – June 2025

Bachelor of Computer Science and Engineering (2021 Turing Class)

- **GPA:** 3.86/4.0, ranking 15/195
- **Core courses:** Algorithm Design and Analysis, Machine Learning, Deep Learning
- **TA:** Data Structure and Algorithm Analysis

## Honors and Scholarships

**Silver Medal** winner of The 46th ICPC Asia Regional Contest Jinan Site 2021

Nov. 2021

**Gold Medal** winner of The 46th ICPC Asia Regional Contest Shanghai Site 2021

Nov. 2021

**Silver Medal** winner of The 2021 ICPC Asia-East Continent Final Xi'an

Jul. 2022

The Second Class of the Outstanding Freshman Scholarship

Sept. 2021

The First Class of the Merit Student Scholarship

Nov. 2022

## Publications

Liang Kuang, Kuangpu Guo, Jian Liang, and Jianguo Zhang (2024). *An Enhanced Federated Prototype Learning Method under Domain Shift*. arXiv: [2409.18578](https://arxiv.org/abs/2409.18578) [cs.LG] [🔗](#). URL: <https://arxiv.org/abs/2409.18578>.

## Research Experience

**Federated Learning under Domain Shift** — Research Intern, CASIA

2024 Spring

- Summarized and reproduced SOTA federated learning approaches for visual tasks under domain shift
- Introduced weighting and selecting into clustering, better shaping client data distribution
- Achieved better accuracy on Digit-5, Caltech-10, and DomainNet benchmarks
- My research paper has been accepted by the IEEE BigData 2024 special session

**TTA-based OOD Detection** (*in progress*) — Dissertation, SUSTech

2023 Fall, 2024 Fall

- Reproduced SOTA OOD detection methods and built CIFAR and ImageNet benchmark
- *Applying Test-Time Adaptation on them to improve the accuracy*

## Selected Projects

### Othello

🐾IceLocke/Othello

- A Java game with well-designed GUI and AI based on Dynamic Programming and Monte Carlo Method
- Top 4 best projects of the semester, uniquely selected for presentation in class

### Camera-based Object Detection

- Trained a YOLO-v3 model on Bdd100k dataset under PaddlePaddle
- Showed good mAP and FPS performance on mobile devices when testing with real time camera incoming

## Skills

**Languages:** Chinese (Native), English (Fluent, TOEFL 103)

**Programming:** Able to program with C++, Python, Java, JavaScript

**Tools:** git, VS Code, L<sup>A</sup>T<sub>E</sub>X...