Zifan GONG

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Education

- **City University of Hong Kong** — Hong Kong
  Ph.D. in Computer Science Supervisor: Prof. Minming Li — *Aug 2022 - June 2026 (expected)*
- **City University of Hong Kong** — Hong Kong
  B.Sc. in Computer Science (First Honor Ranked Top10%) — *Sep 2018 - Jun 2022*

  Full Tuition Scholarship 120000 HKD per year (2018-2022)

Experience

- **Beijing Normal University** — Zhuhai, China
  Research Assistant, advised by Dr. Chenhao Wang — *Jul 2022 - Aug 2022*
  - **Algorithmic Mechanism Design**:
    - Design mechanisms for facility location games with ordinal preferences
    - Extend randomized mechanisms
    - Prove lower bound and upper bound of approximate algorithms
- **City University of Hong Kong Shenzhen Research Institute** — Shenzhen, China
  Research Assistant, advised by Dr. Shuaicheng Li — *Jul 2020 - Mar 2021*
  - **Website Design and Develop**:
    - Developed a full-stack website using Rails, JavaScript, to visualize gene recombination recombination.oviz.org
    - Developed a full-stack website for bacteria analyses and visualization bacteria.deepomics.org
- **City University of Hong Kong** — Hong Kong
  Research Assistant, advised by Prof. Minming Li — *Jan 2020 - May 2020*
  - **Algorithmic Mechanism Design**:
    - Design mechanisms for facility location with fractional preferences and minimum distance
    - Prove lower bound and upper bound of approximate algorithms
    - One paper accepted by the 28th International Computing and Combinatorics Conference 2021

Publications

- **COCOON 2021**: Mechanism Design for Facility Location with Fractional Preferences and Minimum Distance
  Longteng Duan, **Zifan Gong**, Minming Li, Chenhao Wang, and Xiaoying Wu
- **Theoretical Computer Science**: Facility location games with ordinal preferences
  Hau Chan, **Zifan Gong**, Minming Li, Chenhao Wang, Yingchao Zhao
- **AAMAS 2024 Extended Abstract**: Facility location games with task allocation
  Zifan Gong, Minming Li, Houyu Zhou

Projects

- **Deepfake faces detection (Machine Learning)**: Developed a convolutional neural network program based on ResNet50 to detect deepfake and face2face faces images, achieved a accuracy of 98% on the testset (Dec 2021)
- **Image classification (Computer Vision)**: Developed an image classification program using convolutional neural network-Xception and SIFT, achieved a average precision of %78 on the training 5000 images. (Mar 2021)

Awards and Scholarship

- CityU Postgraduate Studentship (2022 - Present)
- CityU Full Tuition Scholarship (2018 - 2022)
- Silver Prize in China International College Students' "Internet +" Innovation and Entrepreneurship Competition 2021

Skills Summary

- **Languages**: Java, C++, Python, Javascript
- **Tools**: Ruby, Flask, Vue, NumPy, Matplotlib, OpenCV
- **English**: GRE 326