JinGfenG OU
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https://jingfengou.github.io

EDUCATION

- **Southern University of Science and Technology, Shenzhen, China** **2022 – Present**

  Master student in Electronic science and technology, expected july 2025

- **Co-training with Shenzhen Institute of Advanced Technology, Chinese Academy of Sciences, Shenzhen, China** **2022 – Present**

- **Guangxi University, Nanning, China** **2011 – 2015**

  B.S. in Thermal and dynamic engineering

PUBLICATION

1. Transcriptomic Perturbation Expression Prediction **Nov.2023 – Aug.2024**

J. Ou, J. Li, Z. Xia, S. Dai, Y. Guo, L. Jiang, J. Tang. scCADE: A Superior Tool for Predicting Perturbation Responses in Single-Cell Gene Expression Using Contrastive Learning and Attention Mechanisms. In ***2024 IEEE International Conference on Bioinformatics and Biomedicine (BIBM)*** (pp. 441-444). IEEE. **(CCF-B)**

2. Applications of AI in Osteoarthritis **Aug. 2024 – Feb.2025**

J. Ou, J. ZHANG, M. Alswadeh, Zh. Zhu, J. Tang*, H. Sang*, K. Lu***.** Advancing Osteoarthritis Research: The Role of AI in Clinical, Imaging, and Omics Fields. ***Bone research.*****(SCI, JCR: Q1, IF:14.3)(Accepted)**

3. Landmark Gene Identification and Feature Selection **Mar. 2023 – Oct.2022**

J. Ou, J. Li, Z. Xia, S. Dai, Y. Guo, L. Jiang*, J. Tang* "RFAE: a high-robust feature selector based on fractal autoencoder" ***Expert Systems with Applications.*** **(SCI, JCR: Q1, IF:7.5) (Under revision)**

PROJECT

1. **Segmentation of Cells and Nuclei in Brightfield Images and Prediction of Bio-logical Characteristics** **Sep. 2024 – Present**

   Collaborating Institution: CellAuto

2. **Prediction of Pregnancy Outcomes Based on Folate Metabolism** **Oct.2024 – Present**

   Collaborating Institution: Shenzhen Second People's Hospital

Work Experience

- **SAIC-GM-Wuling Automobile** **Mar.2016 – Sep.2020**

  Fuel system engineer

Skills

- Skills in language: Python > C++ == C
- Tools for sequencing Data Cleaning and Merging: FASTp, FLASH, MaGeCK
- Tools for cell and nuclei segmentation: Cellprofiler
- Languages: English – Fluent (CET-6 pass), Mandarin - Native speaker

Honors and Awards

1. **Outstanding graduate student,** *SUSTech*, 2024 **Nov. 2024**
2. **Project mentor**, "Second SIAT Student Scientist", *SIAT*, 2023 **Aug. 2023**

Miscellaneous

Hobbies:

- Singing and Choral -SIAT and Southern University of Science choir member
- Fitness (mainly to keep healthy)
- Dogs (especially Samoyed)

Research Interest:

- **Deep Learning Algorithms:** Deep learning models, from CNNs to Transformers, encapsulate human understanding across various fields and, when applied to industry, enhance our comprehension of the world.
- **Biology and Healthcare:** Understanding biology is crucial for addressing the major challenges of disease and aging, making research in this field both urgent and essential.