Shijie Zeng

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College of Computer Science Chengdu University
https://firesaku.github.io/

RESEARCH INTERESTS

Machine Learning, Bioinformatics, Computer Vision

EDUCATION

Major: Software Engineering Sep 2019 - Jun 2023

Overall GPA: **88.23**/100

Ranking: **1**/397 (Overall)

Highlighted Courses: Java Web Programming (97/100), Python Programming (96/100), C Language Programming (96/100), Object-Oriented Programming (96/100), IT New Technology(94/100), WEB Front End Development Technology(91/100), Computer Network (91/100), **Linear Algebra** (91/100), **Probability and Statistics**(91/100), **Numerical calculation method**(92/100)

PUBLICATIONS

Computer Vision

- Song H, Wang Y, **Zeng S**, Guo X, Li Z. **OAU-net: Outlined Attention U-net for biomedical image segmentation**[J]. Biomedical Signal Processing and Control, 2023, 79: 104038.
- Wang Y, Yu X, Guo X, Wang X, Wei Y, **Zeng S**. **A Dual-Decoding Branch U-shaped Semantic Segmentation Network Combining Transformer Attention with Decoder: DBUNet**[J]. Journal of Visual Communication and Image Representation, 2023: 103856.

Bioinformatics

- **Zeng S**, Wang Y, Yang Y. **A Novel Prognosis Model based on Comprehensive Analysis of Pyroptosis-Related Genes in Breast Cancer**[J]. bioRxiv, 2022.

Machine Learning

- Wang Y, **Zeng S**, Yu X, el al. **A Firefly Luminescent Information Navigation Clustering Algorithm**[J]. Applications Research of Computer, 2024, 1.

RESEARCH EXPERIENCES

Machine Learning Jun 2020 - Present

- As the **first author** completed the paper ' **A Dyeing Clustering Algorithm based on Ant Colony Path-finding** ', which is currently under review, but our related code can be found at: https://github.com/firesaku/DCACP
- As the **first author** completed the paper ' **Firefly Forest: A Novel Swarm Intelligence Clustering Algorithm** ', which is currently under review, but our related code can be found at: https://github.com/firesaku/FireflyForest
- As the **first author** completed the paper ' **Chain-Structure-based Clustering by Fast Searching and Finding of Density Peaks** ', which is currently under review, but our related code can be found at: https://github.com/firesaku/CSDPC
- As the first author completed the paper ' **An Outlier Detection Algorithm based on the Foraging Behavior of Slime Molds** ', which is currently under review, but our related code can be found at: https://github.com/firesaku/SMFOD
- As the **first author** completed the paper ' **Outlier Detection Algorithm of Spider Predation** ', which is currently under review, but our related code can be found at: https://github.com/firesaku/SPOD
- As the **second author** completed the paper ' **An Outlier Detection Strategy for Spatial Free Path-Finding based on Hierarchical Ant Colony** ', which is currently under review, but our related code can be found at: https://github.com/firesaku/ODPHAC
- As the **third author** completed the paper ' **Let the Points Move: An Outlier Detection Algorithm based on Points Displacement Analysis for Statically Distributed Data** ', which is currently under review, but our related code can be found at: https://github.com/YF-W/ODDD

Bioinfomatics Jun 2021 - Present

- As the **second author** completed the paper ' **Identification and Modeling of Necroptosis-Related Genes Associated with the Prognosis of Breast Cancer** ', which is currently under review.

HONORS & AWARDS

The 2nd Prize of Contemporary Undergraduate Mathematical Contest in Modeling (National&Award rate less than 2.66%) Nov 2020

The 1st Prize of The National Professional Software Engineering "Blue Bridge Cup" Design Contest Sichuan Province. Sep 2020

Outstanding Innovative Talents special scholarship (Top 1% student of every year) Sep 2019 - Jun 2023

First-class scholarship of Computer Science College (Top 1% student of every year) Sep 2019 - Jun 2023

Best Graduation Thesis of Chengdu University (Top 1% paper) Jun 2023

LEADERSHIP EXPERIENCE

Ginkgo Academic Association Jan 2020 - Jun 2021

Founder & President

- Established an academic organization with the main idea of "science and technology, innovation, and competition". More than **20 courses** and **40 academic discussions** were held. More than **300 students** participated in relevant activities.
- The organization now has more than **80 members**.

National Training Program of Innovation and Entrepreneurship for Undergraduates Jun 2020 - Sep 2021

Team Leader

- This is an electronic seal project combined with blockchain, which solves the problem of traditional seals being stolen and imitatively engraved.

SKILLS

- **Programming Languages:** Python, R, Java, Matlab, C
- **Packages:** Pytorch, Tensorflow, Numpy, Pandas, GGPlot2
- **Others:** LATEX, Markdown, GitHub, GitLab