

Yulu Nie

Southern Medical University, Guangzhou, Guangdong Province

PERSONAL INFORMATION

Name: **Yulu Nie**
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EDUCATION

B.S. in Bioinformatics, Southern Medical University (Currently Enrolled), 2022
GPA:3.57/4.0 Rank:3/43(6.98%)
Core Courses:Biostatistics (94.5), Advanced Mathematics (92.6), Linear Algebra (93.8), Probability Theory (94.6), High-throughput Data Analysis (93.2), High-performance Computing (96), College PhysicsA(100)

RECORDS OF STANDARD TESTS

IELTS(Plan to retake): Overall 6.5(Listening 5.5, Reading 8.0, Writing 6.0,Speaking 5.5)
CET-6: 572 (Listening 177, Reading 232, Writing 163)

Research Experience

Research Experience(August 2023 – Present, Tumor Research Group, Zhujiang Hospital, Southern Medical University)

1.2024.01 Development of Shiny Web Platform for Intratumoral Microbiome Analysis

Participated in the development of an interactive analysis platform, responsible for the following modules:

- Gene Enrichment Analysis: Conducted functional enrichment analysis of microbiome-associated genes based on KEGG/GO databases.
- Microbial Co-occurrence Network Visualization:Utilized ggClusterNet to generate microbial co-occurrence networks.
- Immune Infiltration Correlation Analysis:Designed a Shiny tool to analyze correlations between microbiome and immune cell abundance using algorithms such as CIBERSORTx and xCell.

2.Review Study on Gene Perturbation and Immunotherapy Under submission

3. 2024.9 Construction of Multi-Omics Analysis Platform for Organoids

- Analyzed organoid pathway gene expression and immune microenvironment characteristics.
- Developed a data analysis website for organoids, integrating single-cell and spatial transcriptomics analysis modules.
- Deployed data visualization tools to support interactive chart generation and result export.

Awards & Honors

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| • University Scholarship, Southern Medical University | 9/2023 |
| •Outstanding Student, Southern Medical University | 9/2023 |
| • University Scholarship, Southern Medical University | 9/2024 |
| • Outstanding Student Leader, Southern Medical University | 9/2024 |
| • Provincial Third Prize, National Undergraduate Mathematical Modeling Competition | 10/2024 |

Skills

- **Programming Languages:** Proficient in R and Python; capable of developing programs and implementing algorithms in C.
- **Relevant Knowledge:** Familiar with Linux and Windows operating systems, including basic command-line operations, scripting, and file management.
- **Bioinformatics:** Experienced in high-throughput sequencing data analysis, including data preprocessing, alignment, variant calling, and gene expression analysis; proficient in applying relevant algorithms and tools.