Hsuan-Ming Chi

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Summary

- Biotechnology master's graduate with 4+ years of molecular biology and bioengineering experience, transitioning to bioinformatics.
- Skilled in genomic data analysis, Python programming, and bioinformatics pipeline development.
- Proficient in managing high-performance computing environments for large-scale sequence alignments and data processing.
- Passionate about leveraging bioinformatics and data science techniques to solve biological challenges.
- Seeking bioinformatics opportunities to contribute to groundbreaking research and healthcare innovations.

Experience

Rutgers University (Lab Manager, 2023/11 - Present)

- Conducted large-scale DNA sequence alignment (100GB dataset) using Amarel HPC cluster and optimized bioinformatics software.
- Developed and streamlined bioinformatics workflows to analyze genomic data from mouse models, identifying marker genes and pathways.
- Managed mouse colony operations, including breeding, genotyping, and data collection, while maintaining lab protocols.
- Applied R/Python for bulk RNA-sequencing data processing and statistical analysis.

New York University, Grossman School of Medicine (Research Assistant, 2022/05 - 2023/05)

- Skilled in data analysis and visualization, handling extensive data sets derived from AFM and microscopy imaging.
- Proficient in visualizing 3D data using MATLAB and Python.
- Designed and implemented MATLAB and Python programs to automate data processing for advanced analysis.
- Developed algorithm-aided imaging biosensors for point-of-care applications.

Education

New York University, New York, USA Master of Science, Biotechnology (2021/09 - 2023/05)

National Taiwan Normal University, Taipei, Taiwan Bachelor of Science, Life Science (2017/09 - 2020/06)

Projects

- Mouse-Sheet-Manager - Developed a mouse colony management system using Python, streamlining data recording and processing.

Certifications

- NYU Data Science Bootcamp (2022/03)
- Biology Meets Programming: Bioinformatics for Beginners (2023/06)
- Genetics and Next Generation Sequencing for Bioinformatics (2023/07)

Skills

Bioinformatics & Software: Python, R, SQL, MATLAB, Git, GitHub, Integrative Genomics Viewer (IGV), Pandas, NumPy, Tableau, MongoDB, Microsoft Office (Excel, PowerPoint, Word)

Lab & Molecular Biology: Next-generation sequencing (NGS), PCR/qPCR, RNA FISH, DNA/RNA purification, Chromatography, Immunofluorescence staining, Protein engineering, Flow cytometry, ELISA, Transformation, Transduction

Interests

Snowboarding, Pickleball, Basketball, Baseball, Boy Scouts