Ming-Ju Kuo

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Education

• Technical University of Dresden

Dresden, Germany

MSc in Bioengineering

10/2016 - 09/2019

o Course: Applied Bioinformatics, Structural and Computational Biology

• National Taiwan University

Taipei, Taiwan

BSc in Life Science and Geosciences

09/2010 - 06/2015

o Course: Introduction to Computer Science, Statistics and Computer Programming (C++)

Professional Experience

• National Chiao Tung University Bioinformatician

Hsinchu, Taiwan 04/2020 - 07/2020

o Constructed the pipeline for single-cell analysis (Cell Ranger and Seurat).

• Technical University of Dresden Student Assistant

Dresden, Germany 09/2018 - 12/2019

 Master Thesis - Correlation-based detection of activation/repression transcription factor regulation from gene expression: Predicted the regulatory types of transcription factors by applying various correlation-based method (Pearson, Spearman and distance correlation, etc.) to cancer datasets.

- Lab Project PC-corr application for developmental gene expression pattern analysis:
 Unfolded the gene expression patterns from gene expression profiles by principal component analysis (PCA) and constructed the gene regulatory network by PC-corr methods.
- o Article Measuring group-separability in geometrical space for evaluation of pattern recognition and embedding algorithms: Collected (MINST) datasets and applied the dimensionality reduction methods for the datasets.

Extracurricular Activities

Varsity Male Soft Tennis Team, Country Youth Life Study Club

Skills

Programming Matlab, Python, C++ and Web language (JavaScript and HTML)

Language Mandarin and English

Publications

A Acevedo, Sara Ciucci, **MJ Kuo**, Claudio Durán, Carlo V Cannistraci. Measuring group-separability in geometrical space for evaluation of pattern recognition and embedding algorithms (<u>arXiv preprint</u>)