Yangyang Li

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Self-introduction

I am intensely interested in the data-driven domains including classic machine learning and deep learning. I am also an engineer and I am mainly working on developing algorithms and software to handle problems on Genomics, Transcriptomics. Importantly, I am passionate about exploring the secrets in the process of life.

Education

University of Minnesota — Minnesota, US
Ph.D. in Bioinformatics and Computational Biology — *Sep. 2020 – Present*

China Agricultural University — Beijing, CN
Master in Crop Bioinformatics — *Sep. 2018 – June 2020*

Northeast Agricultural University — Harbin, CN
Bachelor of Arts in Agronomy — *Sep. 2014 – June 2018*

Research Experience and Project

University of Minnesota — Minnesota, US
Ph.D. in Bioinformatics and Computational Biology — *Sep. 2020 – Present*

- Develop algorithm and deep learning model to emulate long-read sequencer
- Develop a tool to assemble whole Transcript for long-read data
- Compare the performance of current tools used to detect alternative splicing variants

China Agricultural University — Beijing, CN
Master in Crop Bioinformatics — *Sep. 2018 – June 2020*

- Dissection of 1,400 genomics data, extracted from eight maize populations. I adapt the bin map method to construct high-density genetic maps suitable for QTL mapping and detection, which regulate multiple, important agronomical traits.
- Conducting Genome-Wide Association Analysis (GWAS) to determine the association between SNPs and maize ear traits in 450 natural populations.

Technical Skills

Languages: C/C++, Python, HTML/CSS, R
Deep Learning Frameworks: Pytorch
Platform: Linux, MacOS
Developer Tools: Git, Docker, TravisCI, PyCharm, Clion, VS Code, Vim, Linux, Gcc, Clang
Specializations: Software and Algorithm Development, Data Analysis and Visualization, Natural Language Processing

Grants and Honors

- Second Prize of Academic Scholarship (2019)
- Agricultural Scholarship (2016)
- Encouragement Scholarship (2014)

Conference talk

- The 7th Mathematical, Computer and Life Sciences Interdisciplinary Young Scholars Forum

Publications

Fry, J. P., Li, Y. Y., & Yang, R. D. (2022, 3). ScanExitronLR: characterization and quantification of exitron splicing events in long-read RNA-seq data (In Review). *bioRxiv*, *1*(1), 1–7. doi: 10.1101/2022.03.25.485864