Yonghao JIN

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Education

UNIVERSITY OF SCIENCE AND TECHNOLOGY OF CHINA (USTC), HEFEI, CHINA

- Bachelor of Science, Department of Physics, June 2017, expected
- Majored in Applied Physics, concentration in Biophysics, overall GPA: 3.49/4.3 or 85.23/100

Fields of Interest

Big data analytics, Data Mining, Bioinformatics, Biomedical informatics, Computational Biology

Research Experience

STRUCTURE AND SEQUENCE MOTIF OF RBP BINDING SITES – 2016-PRESENT

Advisor: Prof. Kun QU, School of Life Sciences, USTC

- Develop a novel iCLIP-seq data analyzing pipeline
- Design a peak-calling algorithm on iCLIP data, greatly improve efficiency in P-Value estimation
- Integrate PARS probing data and ViennaRNA Package to reconstruct RNA secondary structures
- Detect RBP structure and sequence motif and predict RBP binding sites with machine learning

VARIATION OF WATER MOLECULES VIBRATION WITH TEMPERATURE – 2015

Advisor: Dr. Wei ZHAO, School of Physics, USTC

- Develop pipeline to detect peaks in Raman spectrum of water molecules
- Design algorithm to remove Rayleigh backgrounds in Raman spectrum
- Interpret the peak shifts with variation in hydrogen bond strength with temperature

Open Source Projects

MMACLONE

GitHub Repository: https://github.com/jyh1/mmaclone

- A cross-platform term rewriting system (TRS) with syntax similar to *Wolfram Mathematica*
- Having received **over one hundred stars** on GitHub
- Featured with sophisticate pattern matching facilities, symbolic computation
- Winning me the ***Featured Contributor*** in the *Wolfram Community*

SEQUENCE

GitHub Repository: https://github.com/jyh1/sequence

- A user-friendly GUI program in Windows OS developed with the GTK library aiming to help sequence validation in molecular cloning experiments
- Generating fasta files from related sequencing data to be used for down-stream analysis

Skills

- **Adept in**: Python, C/C++, Mathematica (Graphing, Programming), Haskell, Pascal, Scheme, Git
- **Familiar with**: Bash, Matlab, C#, Java, JavaScript, HTML

Standardized Tests

- **TOEFL iBT**: 29(Reading) + 29(Listening) + 22(Speaking) + 27(Writing) = 107
- **GRE General**: 170(QR) + 155(VR) + 3.5(AW)

Awards and Honors

- Bronze Merit Scholarship (Top 20%) – 2014
- First Prize, the 17th National Olympiad in Informatics in Provinces (NOIP) – 2011