

Yun YAN

an aRtist in RNA bioinformatics

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Interview In Person at U.S.: Available

"you shall know the truth and the truth shall set you free"

Experience

Computational Biology Center

2013.08–2014.06 (expected)

Memorial Sloan-Kettering Cancer Center

New York City, U.S

- Chief bioinformatician in internationally collaborative project (in progress) for exploring co-transcriptional splicing in *Arabidopsis thaliana* as a volunteer in Prof. Gunnar Rätsch's lab.
- Web architect building the Chinese Wiki with cutting-edge Bootstrap3 to make PALMapper, the RNA-seq aligner developed in the lab, more international and friendly access to Chinese users.

Graduate Student Summer School

2012.08–2012.09

Helsinki University

Helsinki, Finland

Visiting graduate student (only 10 selected out of the entire grade) attended Summer School at Institute of Biotechnology, Helsinki University, fully supported by Biocenter Finland, Helsinki University, Wuhan University tri-sides collaboration, welcomed by Prof. Erkki Raulo, Helsinki University.

"Dragon Star" Program

2012.06–2012.07

Jilin University

Jilin, China

For further professional trainings I selected "Bioinformatics" subject in 2012, trained by Prof. Ting Wang, Washington University, U.S.. The program is fully supported by Chinese Academy of Sciences (CAS), which provides timely and comprehensive training to graduated students on selected research subjects.

Unit of Synthetic Biology (USB)

2011.02–2011.09

Sci.&Tech. Department, Beijing Genomics Institute (BGI)

Shenzhen, China

Chief tech executive, greatly contributed to new-born team construction, developed stable and rapid bench-work platform when collaborated with BIOFAB to work on C.dog (Central Dogma on *E.coli*) project. At the early stage, I also contributed to collaboration with John Hopkins University to work on Yeast 2.0 project.

Cancer Research Group

2010.10–2011.02

Sci.&Tech. Department, Beijing Genomics Institute (BGI)

Shenzhen, China

Bioinformatics Intern, and my bioinformatics career launched as a student of WHU-BGI two-sides Educational Collaboration. I focused on detecting InDel (insertion /deletion) and Structural Variances when participating in lung cancer researches.

My Public Resources Under Maintain

- Plots library dependently produced by R (Trust Me, I'm aRtist github.com/Puriney/Rtist)
- RNA-seq aligner PALMapper Chinese Wiki (puriney.github.io/palmapper-chinese/loading.html)
- Home-made CLIP-seq Toolkit (puriney.github.io/CLIPseqToolkit/)
- CLIP-seq Introduction (puriney.github.io/clipseq/#/start)

Master Thesis

Title: Genome-wide Identify Distance Effect of RNA Binding Protein PTB on RNA Splicing

Supervisors: Professor Xiang-dong Fu, UCSD

Description: "**Humid**" lab approaches, molecular biology experiments (wet) integrated with next-generation sequencing analysis (dry), were used in my thesis for hypothesis validation.

- Uncovered the distance effect that cassette or alternative exon would be less inhibited spliced-out with gradient increased distance to binding site of Polypyrimidine Tract Binding protein (PTB) using RNA-seq and Cross-Linking Immunoprecipitation sequencing (CLIP-seq) approaches.
- Independently developed R nested with Perl toolkit dedicated to CLIP-seq analysis pipeline and deployed at GitHub friendly to reproducible research.

"Humid" Skills

Benchwork –Typical Molecular Biology Experiments.....

Plasmids Sub-clone, PCR, Transformation, Human Cell Culturing, Transfection, RNA exaction.

Bioinformatics, Statistics, Machine Learning.....

Skillful at NGS analysis; Basic implement experience in SVM.

Programming Language & Experience Years/Months.....

Advanced: **R** (2y), **Perl** (3y) ; Mid: **Python** (4m), **Bash** (1y); Newbie: Octave (1m), C++ (1m)

Bioinformatics Tag Clouds

- Bowtie2, STAR, TopHat, BEDTOOLS, Bioconductor, BioPerl, Pysam
- Rstudio, Vim, SublimeText2, Xcode, Bio-Linux6, GitHub
- ggplot2, knitr, Circos, UCSC Genome Browser, IGV
- T_EX, Markdown, HTML5, CSS3, Bootstrap3

Education

MScRes (with honor), Biochemistry and Molecular Biology

2011.09–2013.06

College of Life Sciences, Wuhan University

Wuhan, China

- Cumulative GPA: 3.47/4.00

B.S., Biology Base Class

2007.09–2011.06

College of Life Sciences, Wuhan University

Wuhan, China

- Last Year at campus GPA: 3.53/4.00 (with Wuhan University Scholarship); Cumulative GPA: 3.22/4.00
- Thesis: Preliminary Researches in Central Dogma of *E.coli*. (International collaboration of BGI and BIOFAB)

My MOOC on Coursera.org

- Computing for Data Analysis, by Roger Peng (JHU), 2013.04 – Earned 89/100
- Machine Learning, by Andrew Ng (Stanford), 2013.10 – Earned 98.2/100

My Social Service

Volunteer for translation and guide service

2010.07

World Expo 2010

Shanghai, China