

XINRAN LI

xinranli.github.io ♦ (412) · 932 · 6740 ♦ xinranli@cmu.edu

OBJECTIVE: To obtain a full-time position in software engineering or web development

EDUCATION

Carnegie Mellon University (CMU)

M.S. in Computational Biology

Pittsburgh, PA

Aug 2014 – Dec 2015(*expected*)

Honor: Merit Fellowship (Tuition Scholarship) from Department of Biological Sciences

Selected Courses: *Machine Learning, Bioimage Informatics, Programming for Scientists, Network Science*

Sun Yat-sen University (SYSU)

B.S. in Biological Science

Guangzhou, China

Sep 2010 – June 2014, China

Honor: Best software tool project and gold award in 2013 iGEM (International Genetic Engineering Machine) world competition (SYSU-Software team member)

Nov, 2013, MIT

TECHNICAL SKILLS

Languages

Python, Java, Go, Perl, R, HTML, CSS, JavaScript

Operating Systems

MacOS, Windows, Linux/Unix

Other Specialities

Adobe Photoshop, Bootstrap, MySQL, Vim, Git, bash, jQuery, Django, AJAX

WORK EXPERIENCE

Philips Research

Research Intern of Clinical Informatics Solutions and Services(CISS)

May 2015 – Aug 2015

Briarcliff Manor, NY

- Developed a program in Python to predict antibiotic resistant genes by mapping SNPs to corresponding genes in *Enterococcus faecalis* chromosome and classify potential mutations into synonymous and non-synonymous.
- Employed statistical method to estimate correlation between putative antibiotic resistant genes to clinical profiles based on Chi-Square test using R.

SELECTED PROJECTS

Social Network (Deployed on AWS EC2)

Jan 2015 - Mar 2015, CMU

- Developed an dynamic website that supports registration, authentication, email verification, photo upload, and quasi-real-time updates using JavaScript and AJAX based on Django Framework and SQLite.
- Design front-end visualization and user interface using Photoshop, HTML and CSS.

Biological Data Mining and Bioimage Processing

Oct, 2014 - May 2015, CMU

- Applied R to visualize small-noncoding RNA and RNA-Binding proteins interactions network.
- Used Matlab to perform noise filtering, feature detection, image segmentation and simulation of microphotographs.

Analysis of CRISPR/Cas9-induced DNA Sequences Differences

Mar, 2014 - Jun, 2014, SYSU

- Developed a program in Perl to analyze CRISPR/Cas9 edited DNA sequence of *CD274* gene and *B2M* gene in two different human cell lines and estimated CRISPR/Cas9 gene-editing efficiency.

Computer Aided Synbio Tool for Synthetic Biology (Team project)

Mar, 2013 - Nov 2013, SYSU

- Developed a software which enables regulatory networks simulation, gene circuits design, modeling, vector design to address specific technical challenges in synthetic biology by mathematical modeling.
- Designed icons, software UI, website graphic interfaces and illustrative postboard.