

JIYUE QIN

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Education

Columbia University, Mailman School of Public Health

New York, NY

Master of Science in Biostatistics

Exp. May 2020

- GPA: 4.19/4.33
- Relevant coursework: Data Science, Machine learning, Survival Analysis, Deep Learning, Longitudinal Data Analysis

Huazhong University of Science and Technology (HUST)

Wuhan, China

Bachelor of Science in Bioscience

June 2018

- GPA: 3.87/4.0, Rank: 1/53, Recipient of National Scholarship

University of California, Berkeley

Berkeley, CA

Studying Abroad Program Sponsored by China Scholarship Council

Jan - May 2017

- GPA: 4.0/4.0, Coursework: Developmental Biology, Cell and Systems Biology, Neurobiology of Disease

Projects

Hospital readmission in patients with diabetes: analysis of electronic health data (R)

Jan - Mar 2020

- Processed clinical data of 101,766 encounters, including decoding ICD-9 codes and extracting records
- Identified risk factors of readmission like length of stay and discharge disposition using logistic regression
- Performed sensitivity analysis to understand the effect of A1c test on readmission

Deep learning for cancer detection from pathology images (Python, TensorFlow)

Oct - Dec 2019

- Developed the framework of cancer cell detection from gigapixel whole-slide images
- Utilized the techniques of patch extraction, transfer learning and heatmap generation
- Experimented with other neural network architectures and data augmentation

Interventions to reduce alcohol dependence: results of a randomized clinical trial (R)

Nov - Dec 2019

- Analyzed longitudinal data and established treatment effect on alcohol drinking rate by GEE method
- Identified the effect of gender on response to treatment by incorporating interaction terms into models
- Performed logistic regression for relapse status to understand the long-term effect of treatment

Experience

Columbia University

New York, NY

Graduate Teaching Assistant

Sep - Dec 2019

- Assisted in administrative duties of course SQL programming and held weekly office hours
- Graded 80+ SQL scripts and 5 database projects and provided feedback to students

Regeneron Pharmaceuticals

Tarrytown, NY

Data Science Intern

June - Aug 2019

- Analyzed data from 4 clinical trials for compliance pattern, actionable insights were presented to the team
- Built predictive models of patients' compliance using supervised machine learning methods like random forest
- Built two R Shiny apps for team to streamline data visualization, analysis and model building
- Wrote statistical analysis plans for three studies involving wearable devices

Huazhong University of Science and Technology

Wuhan, China

Research Assistant

Aug 2017 - June 2018

- Simulated human gut microbiome genomic data with 10786 SNP and evaluated three variant calling software
- Analyzed 12GB of metagenomic NGS data and discovered strain-level SNP pattern by unsupervised machine learning methods like clustering

Frasergen

Wuhan, China

Bioinformatics Analyst Intern

Mar - May 2018

- Developed pipeline for comparative genomic analysis using Python
- Conducted genomic analysis using SMRT sequencing data and presented the results to two clients

Skills & Certifications

Computer skills: R, Python, SQL, SAS, Microsoft Office (Word, Excel, PowerPoint, Access), git, Linux Shell, REDCap

Languages: Chinese (native), English (fluent)

Certification: HIPAA