

Douglas C. Wu

Bioinformatics Scientist

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Professional summary

Highly-motivated fast learner with > 7 years of bioinformatics consultation and research experiences in next-generation sequencing analysis. Collaborative and innovative with strong communication and interpersonal abilities. Staying up-to-date with industrial trends in sequencing and programming technologies. Comfortable with working in a fast-paced environment.

Skills

Bioinformatics Multiplex PCR primer design, WGS-seq, Targeted DNA-seq, RNA-seq, 16S-seq, methyl-seq, experimental design, familiar with public *-omics databases and their APIs, such as UCSC and Ensembl

Coding Python, R, Bash, MySQL, C/C++, Matlab, \LaTeX

Computing Familiar with Amazon Web Service (AWS) and High performance computing (SGE and SLURM)

Deep learning framework JAX/STAX, PyTorch, Keras/Tensorflow

Experimental Cell-free DNA and RNA-seq, Methyl-seq, Molecular diagnostics, Live cell imaging

Language English, Mandarin Chinese, Cantonese

Experience

QIAGEN

July 2019 – Present

Bioinformatics Scientist

Frederick, MD

- > Founding member of the bioinformatics group in QIAGEN Genomics Services
- > Bioinformatics consultation for thousands to million-dollar-sized NGS projects from experimental design to result reporting
- > Expert in data visualization and progress/result reporting presentations for academic, pharmaceutical and biotech researcher customers, and internal stakeholders
- > Boosted revenue by enabling analyses of larger projects by developing internal data pipelines to streamline and scale up NGS data processing
- > Expanded business scope by designing, benchmarking and integrating QIAGEN R&D NGS products into customer projects
- > Improved business developments by providing bioinformatics training for and working directly with sales team and field scientists
- > Collaborated with software engineers and IT teams to setup local and cloud servers for bioinformatics data analysis and data deliveries
- > Worked with global product managers to establish genomics services cost calculations to provide more competitive service pricing
- > Built internal web tools using RESTful API to automate data delivery for wetlab scientist

University of Texas at Austin

Sep. 2013 – May. 2019

Graduate Research Assistant

Austin, TX

- > Characterized cell-free DNA and RNA-seq to identify biomarkers for molecular diagnostics
- > Developed streamlined total RNA/small RNA/DNA-seq with a novel reverse transcriptase
- > Devised statistical and quantitative metrics for benchmarking and validating methods in collecting and analyzing terabytes of genomic data

Education

University of Texas at Austin

2013 – 2019

Ph.D specialized in Bioinformatics

Austin, TX

University of Illinois at Urbana Champaign

2009 – 2013

BS in Biochemistry

Champaign, IL