Ken Kirio

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EDUCATION

Brandeis University, Waltham, MA — Expected May 2024
Bachelor of Science, MS in Biochemistry and BS in Computer Science — GPA: 3.99
QBReC Fellow, Undergraduate Biochemistry Department Representative
Selected Courses: Computer Security, Database Management Systems, Deep Learning, Operating Systems,Web App Development, Software Testing Techniques, Data Structures & Algorithms, Linear Algebra

TECHNICAL SKILLS

Languages: Java, Python, Javascript, SQL, CSS, HTML
Skills: Linux, Git, automated testing, behavior-driven development (BDD), concurrency
Libraries: Pytest, Pytorch, Scikit-learn, NodeJS, MongoDB

EXPERIENCE

Research Assistant, Kadener Lab, Brandeis University — May 2021 – Present

- Utilize computational biology techniques to analyze and visualize RNA-seq data
    - Techniques: normalization, principal component analysis, differential analysis, clustering analysis, data visualization
- Awarded funding totaling $16,000 from Quantitative Biology Research Community, Blavatnik Family Foundation, Gordon Science Fellowship

Computer Science Instructor, Juni Learning — May 2021 – Present

- Teach Python, Java, Data Structures & Algorithms courses to K-12 students on Zoom one-on-one

Computer Science Teaching Assistant, Data Structures & Algorithms, Brandeis University — Aug – Dec 2022

- Taught recitations on linked lists, splay trees, graph search, heaps, priority queues
- Assessed and provided feedback on assignments for 50+ students each week

PROJECTS

Drug Toxicity Deep Learning Model, Brandeis University — Oct – Dec 2023

- Designed a deep learning model to classify potential drug candidates on 12 toxicity properties
    - Graph attention network (GAT) to calculate local molecular features
    - ROC AUC of 0.754, highest in the class

Automated Transcription Deep Learning Model, Brandeis University — Oct – Dec 2022

- Designed a deep learning model to transcribe speech from audio
    - Audio converted to Mel spectrogram
    - Trained convolutional neural network (CNN) to identify audio features
    - Word Error Rate (WER) of 0.4465 vs. open-source standard WER=0.4967