Ken Kirio

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EDUCATION

Brandeis University, Waltham, MA — Graduated May 2024

BS in Computer Science & Biochemistry, MS in Biochemistry — GPA: 3.98

- Summa Cum Laude, Quantitative Biology Research Fellow, Biochemistry Department Representative
- Relevant Coursework: Database Management Systems, Deep Learning, Operating Systems, Web App Development, Software Testing Techniques, Data Structures & Algorithms, Linear Algebra

SKILLS

Languages: Python, Java, R, JavaScript (Node, React), HTML, CSS

Tools/Concepts: Linux, Git, SQL, APIs, MongoDB, Data Structures, Statistical Analysis

EXPERIENCE

Data Scientist Co-op, GSK — June – Dec 2024

- Automated and parallelized ETL data processing in HPC environment
- Maintained SQL database in Oracle/Google Cloud Platform
- Built cheminformatics tools for machine learning and lead drug discovery

Software Engineer Co-op, Buffr — Jan – May 2024

- Built web app prototype for fintech startup providing financial inclusion for the unbanked in Namibia
- Researched recommendations for AI credit scoring model architecture and transparency

Bioinformatics Researcher, Kadener Lab, Brandeis University — May 2021 – May 2024

Studied the role of circular RNA in aging through bioinformatics analysis of deep transcriptomic datasets

- First author paper under review (DOI: 10.1101/2024.08.04.606529)
  - Awarded grants totaling $16,000 from Quantitative Biology Research Community, Blavatnik Family Foundation, Gordon Science Fellowship
- Designed and executed bioinformatics pipelines in HPC environment
- Performed statistical data analysis and visualizations in R
- Awarded grants totaling $16,000 from Quantitative Biology Research Community, Blavatnik Family Foundation, Gordon Science Fellowship

PROJECTS

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

Graph Attention Network trained to identify 12 toxicity characteristics based on molecular structure

- Written in Python using Pytorch framework

Disease Diagnosis Deep Learning Model, Brandeis University — Oct – Nov 2023

Fine-tuning of BERT LLM to diagnose Acute Respiratory Distress Syndrome (ARDS) based on medical notes

- Written in Python using Pytorch framework
- Feature selection based on domain expertise and statistical analysis of most informative text
- Corrected imbalanced dataset with oversampling/undersampling, focal loss

Brandeis University Student and Alumni Association Website, Brandeis University — Oct – Dec 2022

Social media website for the BUSAA: members can post jobs, find networking events, and communicate through a real-time chat

- Features user authentication, RESTful API, database management
- Written in Javascript (Node) with MongoDB