Olukorede Ogundele

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SKILLS

Programming Languages: Python (DeepChem, RDKit, Biopython, Scikit-learn, TensorFlow, PyTorch, Scikit-Image, NumPy, Pandas, OpenCV, Cellpose, Seaborn, Matplotlib, Plotly), C++, SQL

Software Tools: Git/GitHub, Docker

Data Techniques: Data cleaning, analysis and visualization, supervised/unsupervised learning, deep learning

Laboratory: Next-generation sequencing, aseptic technique, microscopy, PCR, gel electrophoresis

WORK EXPERIENCE

Hardy Elementary School *August 2024 – Present*
After School Science Teacher Arlington, MA

- Planned and coordinated science activities for kindergarten - fourth grade
- Final results were presented to UC Berkeley faculty, peers, and the Pivotal Life Sciences team.

Pivotal Life Sciences *January – May 2024*
Computational Biology Intern Remote

- Utilized deep learning methods such as graphing convolutional networks to identify optimal algorithms for drug discovery.
- Final results were presented to UC Berkeley faculty, peers, and the Pivotal Life Sciences team.

Tempus Labs Inc *October 2022 – July 2023*
Molecular Technologist I Chicago, IL

- Collaborated with a team of 30 to deliver high-fidelity NGS data with industry-leading speed, cutting turnaround times by 50% within the clinical lab.
- Performed routine testing, quality control, calibration, maintenance and proficiency testing in accordance with CAP, CLIA, and NYSDOH regulations.

Joyn Bio *May - September 2022*
Research Associate Boston, MA

- Streamlined laboratory operations; authored and implemented three comprehensive SOPs focused on various laboratory processes.
- Using Python and R, developed and published a strain library that encompassed over 20,000 strains to streamline ad hoc requests for microbial fermentation, culturing and cryopreservation.

New England Biolabs *August 2021- March 2022*
Packaging Technician Ipswich, MA

- Fulfilled orders and performed standard quality control protocols.

Florida Institute of Technology *August 2019- May 2021*
Undergraduate Researcher Melbourne, FL

- Conducted an independent research project investigating organismal toxicity associated with BMAA, a non-canonical amino acid that can cause protein misfolding
- Established the effects of BMAA on motility and lifespan using *C. elegans* and light microscopy.

PROJECTS

Machine Learning for Life Sciences Repository ***September 2023 - Present***
https://github.com/koreogundele/machine_learning

- Exploring various machine learning and deep learning algorithms and their applications in the life sciences.
- Constructed models such as Naive Bayes and K-Means Clustering for other applications.

Protein Function Prediction Model ***January - May 2024***

https://github.com/koreogundele/PivotalWork

- Wrote a pipeline of Python functions which runs a protein prediction model on over 80,000 proteins at a time.
- Managed the entire function prediction pipeline project independently, from initial concept to final delivery.
- Final code was handed over to Pivotal's Computational Biology department.

Molecular Energy Prediction ***October - December 2023***

https://github.com/koreogundele/chem277b-final-project

- Individually developed two deep learning models for predicting molecular energies of small molecules in the ANI1 dataset.
- Trained and evaluated ANN and ResNet models for accurate molecular energy prediction.
- Presented results to the UC Berkeley faculty and peers.

Cellular Automata Model ***November - December 2023***

https://github.com/franbiancaoca/chem274b-finalproject

- Designed and implemented a cellular automata model in C++ to simulate and visualize the dynamics of changing allele frequencies in a population, collaborating effectively with classmates.

EDUCATION

University of California, Berkeley August 2023 - May 2024

Masters in Molecular Science and Software Engineering **GPA:** 3.4/4.0

Florida Institute of Technology August 2017 - May 2021

Bachelor of Science in Biomedical Science **GPA:** 3.6/4.0