Shiloh Alleyne

Master of Science Bioinformatics 2-1
Bachelor of Science honors Biochemistry 2-1

A highly numerate software developer, with a keen interest in machine learning, functional programming and AI. Sporting a repertoire of knowledge and techniques forged through a BSc in biochemistry from the University of East London, an MSc in Bioinformatics at Queen Mary University, and later refined working in finance at Gallagher Re. Easy going, yet committed, flexible and determined, poised to excel in positions working with accomplished colleagues in positions of innovation.

Proficiencies

Python

Through completion of Rosalind's bioinformatics problems as well as my own self-study I have slowly created a foundation in Python on which I shall build my career. This foundation skills have been honed greatly during my Bioinformatics MSC. I've gained experience not only using Python the main language in a pipeline but also as key interconnective piece in a greater bioinformatics ecosystem.

Unix

Unix was used throughout the course of my MSs to interface with Queen Mary's high performance computing cluster Apocrita allowing me to gain valuable experience working with clusters and HPC.

Java

Working as a full stack developer at Gallagher Re I've gained valuable expertise coding in Java at an enterprise level as well as handling, maintaining and pushing features to legacy code, as part of my role as a developer on Gallagher's inhouse financial modeling platform, iFM.

Rust & Haskell

Embracing the challenge of continuous learning, I have dedicated my free time to mastering Rust and Haskell, two programming languages renowned for their performance and reliability. This self-initiated endeavor has not only expanded my technical toolkit but has also sharpened my problem-solving skills. Rust's emphasis on type safety and concurrency, coupled with the pure functional paradigm Haskell, has enhanced my ability to write more robust, efficient, and maintainable code.

Machine Learning and R

Proficiency in the coding language R is one of the skills I gained from my bioinformatics MSc. R was the main language used for my MSC research on the Multinomial Classification of Genes based on their loss of function. This project forced me to use R in a much boarder sense than simply statistics, grating me experience with R's many packages and the application of different machine learning algorithms. The *Tidymodels* machine learning framework was used to create the machine learning pipeline responsible for the classification of genes.

Korean

Learning a language allows you to connect to people that you will never had been able to. As my skills in Korean continue to improve, I am sure that it will prove to be a valuable asset in my repertoire.

제가 한국어를 배우는 시간이 즐겁게 지냈습니다. 자기에 대한 많이 배우고 새운 사람들을 만났습니다. 저는 저의 기분을 다른 언어로 분명히 전할 수 있는 것이 목적입니다. 올해에는 TOPIC 3에 도달하기를 희망합니다.

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Academic Experience

September 2021 – August 2022
Master of Science: Bioinformatics 2-1, Queen Mary University London

Over the course of my biochemistry BSc, I gained an interest in the field of bioinformatics. In order to nurture this interest and further myself, I undertook a master's in bioinformatics at Queen Mary University London. This has allowed me to develop a new repertoire bioinformatical skills such as Linux, Python, R, SQL, JavaScript and Machine learning.

During my time at Queen Mary University, I researched Multinomial gene classification using machine learning approaches. This was done mainly in R and Phyton coding languages and allowed me to hone my coding skills and gain experience creating and maintaining my own bioinformatics pipeline. The project consisted for me categorizing a set of 19,000 genes into fusil categories based on their loss of function (developmentally lethal, lethal, and viable). To do so I used the Tidymodels modeling framework to create model stack of 8 different models (Boosted Trees, Flexible Discriminant Analysis, Multinomial Logistic Regression, Radial Support Vector Machines and Naïve Bayes, Random Forests, and a Single Layer Neural Network) for the classification.

September 2018 – June 2021
Bachelor of Science honors: Biochemistry 2-1, The university of East London

Throughout my studies at the university of East London I have studied a great deal of topics ranging from Biological Disease to Bioinformatics and DNA Analysis. My time studying biochemistry at UEL has rounded be into a burgeoning scientist with knowledge relevant to verity of fields.

My final year Bacterial Efflux Pumps Bioinformatics Investigation project has allowed me to take the first steps in the field of Bioinformatics, sharpening my data handling skills and my knowledge of python. The focus of my final project was to create a protocol capable of accurately and efficiently finding Efflux Pump components within the bacterial proteome. This involved searching through proteomes retrieved for online databases such as Uniprot. And then parsing each proteome for hypothetical proteins using python scripts and searching the newly parsed proteins for consensus sequences of efflux pump components. These scripts used a verity of different tools found in python from regular expressions to the Bio-python add on module. Throughout my time at the University of East London, I have gained not only the knowledge necessary to advance my career in science, but also a deep appreciation for the process of learning itself.

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Experience

September 2023- Present
Graduate Financial Model Developer, Gallagher Re
Working as a software developer on Gallagher Re's in-house financial modeling tool, iFM, has allowed me to greatly increase my proficiency in both JavaScript and Java and further grow and utilize my knowledge of machine learning techniques and algorithms.

August 2022 – August 2023
Writer, SequenceSever
Writing blog posts for the SequenceSever website has increased my knowledge of the command line interface as well as my writing skills.

September 2022 – August 2023
Bartender, Belvedere Arms
Bartending at the Belvedere has reinforced my teamwork skills.

August 2019 – September 2021
Bartender, Club 1 Ascot
Bartending in club 1 has developed not only my ability to work under pressure but also my communication and people skills.

2017 – Present
Bookkeeper, Turtle Tots Ascot and Bracknell
Managing the accounts for the family business has sharpened my organization skills to the upmost degree in a very detail orientated manner.

August 2010 – Present
Theatrical technician, Wilde Theatre
As a theatre technician I have been involved in orchestrating the lighting over for a multitude of productions at the Wilde Theatre. With each production my skills as a technician and teamwork have improved.

Education

2021 – 2022
Master of Science, Bioinformatics
Queen Mary University London

2018 - 2021
Bachelor of Science honors, Biochemistry
University of East London

Skills

- Coding
  - ❖ Java
  - ❖ Python
  - ❖ Rust
  - ❖ Haskell
  - ❖ Unix
  - ❖ R
  - ❖ JavaScript
  - ❖ SQL
- Machine Learning
- Leadership & Teamwork
- Korean

Contact

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