

ANAY ATHAWALE

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EDUCATION

Northeastern University , Boston, MA, USA <i>Master of Science in Bioinformatics</i>	Grad: 12/2023
Massachusetts College of Pharmacy and Health Sciences , Boston MA, USA <i>Master of Public Health</i>	Grad: 05/2021
Maharashtra University of Health Sciences , Aurangabad, Maharashtra, India <i>Bachelor of Dental Surgery</i>	Grad: 03/2018

SKILLS

- **Programming Languages:** Python, SQL, R, HTML, CSS
- **Tools & Methodology:** Git, Agile, CI/CD, Jira, Linux, AWS, Docker
- **Libraries:** TensorFlow, Keras, PyTorch, Scikit-Learn, NumPy, Pandas, Matplotlib
- **Domains:** Machine Learning, Deep Learning, Artificial Intelligence, Data Science, Natural Language Processing, Computer Vision

WORK EXPERIENCE

Moderna Therapeutics, Cambridge MA, USA <i>Data Science, Bioinformatics Co-op</i>	07/2023 – 12/2023
<ul style="list-style-type: none">• Developed advanced machine learning models for antibody sequence discovery, enhancing targeted therapy research efficiency by 30%, utilizing Python, TensorFlow, and cloud computing platforms like AWS.• Optimized large genomic databases, achieving a 25% improvement in data retrieval times, leveraging skills in SQL and data management on cloud environments.• Implemented scalable cloud-based bioinformatics pipelines, enhancing next-generation sequencing data processing efficiency by 20%, using AWS, Docker, and Nextflow.• Conducted statistical and machine learning analyses on antibody sequences, significantly advancing the understanding of immune responses, applying Python, Scikit-Learn, and statistical analysis techniques.• Designed predictive models for antibody efficacy, achieving an 85% accuracy rate, employing deep learning frameworks like TensorFlow and Keras.	

Northeastern University, Boston MA, USA <i>Graduate Research Assistant - Cheminformatics</i>	07/2022 – 07/2023
<ul style="list-style-type: none">• Supported SARS-CoV-2 drug discovery initiatives by using statistical modeling and machine learning methods to identify and evaluate potential drug compounds, increasing project deliverables by 20%.• Automated computational workflows, refining molecular docking studies' efficiency and accuracy.• Developed tools for protein structure analysis and receptor grid preparation, reducing procedural time by 25%. Played a key role in interdisciplinary research teams, developing and leading computational methods that translated complex immunological data into actionable insights for cancer treatments.	

Rutgers University, Newark NJ, USA <i>Junior Data Scientist- Clinical Preceptorship in Diagnostic Sciences</i>	07/2021 – 12/2021
<ul style="list-style-type: none">• Integrated clinical knowledge with genomic data analysis, improving diagnostic accuracies in oncology and treatment protocols.• Streamlined data management processes, enhancing clinical research efficacy and maintaining detailed patient records.	

PROJECTS

Computational Drug Discovery and Deployment of ML Model as a Web Application	
<ul style="list-style-type: none">• Developed a QSAR model for Acetylcholinesterase inhibitors using advanced algorithmic techniques, achieving 80% accuracy in pIC50 value predictions, thereby informing potential treatments.• Leveraged React.js and machine learning frameworks to create a user-friendly web application that predicts the biological activity of compounds, focusing on interactive data tables for enhanced user engagement.	
Customer Survival Analysis and Churn Prediction App	
<ul style="list-style-type: none">• Conducted survival analysis to explore customer retention, utilizing Kaplan-Meier curves and Cox-proportional hazard models, identifying key factors influencing customer churn.• Developed and deployed a Random Forest churn prediction model within a Flask app, achieving an F1 score of 0.62 and an ROC-AUC of 0.85, complete with visual analytics to support strategic customer retention efforts.	
Action Detection Using LSTM Neural Networks	
<ul style="list-style-type: none">• Implemented real-time action recognition using TensorFlow, OpenCV, and MediaPipe, accurately classifying human actions from video input.• Trained an LSTM model to interpret pose estimations, providing real-time visual feedback and improving interaction through detected actions.	