Ryin Rouzbehani

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Education

San Diego State University — San Diego, CA
Master of Science, Bioinformatics and Health Informatics - Emphasis in Machine Learning — *2022 – 2024*

University of California, San Diego — La Jolla, CA
Bachelor of Science, Biology - Emphasis in Computational Biology — *2017 – 2020*

Technical Skills

Languages: Python, R, Bash, SQL, Tableau, Tableau Prep, HTML, CSS, LaTeX
Python Libraries: NumPy, Pandas, Biopython, Scikit-learn, Matplotlib, Seaborn, PyTorch, Tensorflow
General Developer Tools: Unix, Snowflake, MySQL, Git, Docker

Experience

Healthcare Data Analyst — 2020 – 2022
West Health Institute — *La Jolla, CA*

- Conceptualized and maintained over 20 complex data visualizations and interactive dashboards within Tableau for diverse healthcare interests, including population health, healthcare costs, and quality metrics.
- Spearheaded data acquisition, cleaning, and integration processes for public and private sector healthcare datasets spanning millions of records, while maintaining strict compliance with HIPAA/PHI standards. Leveraged advanced data wrangling techniques and scripting to automate data pipelines, ensuring data integrity and timeliness. Developed highly robust and user-friendly tools employed in dozens of stakeholder presentations and industry conferences, driving informed decision-making and catalyzing progress in healthcare policy and funding initiatives.

Computational Neuroscience Research Associate — 2018 – 2020
Institute for Neural Computation — *La Jolla, CA*

- Furthered cutting-edge computer vision software system capable of quantifying both oscillatory and directional components of head tremors with high accuracy, significantly enhancing the objectivity and precision of clinical examinations. Integrated advanced machine learning techniques, including deep neural networks and pose estimation algorithms, to analyze high-resolution video data, enabling clinicians to supplement their differential diagnoses with quantitative measurements.
- Led team of 3 intern researchers, cultivating a collaborative environment and propelling project success through effective communication, task delegation, and continuous mentorship. Conducted weekly progress reviews, provided technical guidance, and facilitated knowledge sharing, ensuring seamless integration of individual contributions and timely achievement of project milestones.

Projects

AncFlow | *Python, Snakemake, AlphaFold2, Git, Docker* — 2023 – 2024

- Designed Snakemake-based pipeline, utilizing deep learning methods to predict the structure of and sequences of ancestral proteins from their respective extant descendants. Pipeline served as valuable starting point for protein engineering efforts, esspecially in the development of novel enzymes with desired properties for biotechnological applications.

AutoPhy | *Python* — 2022 – 2023

- Contributed to the creation of CLI python package automating phylogenetic clustering method for the monophyletic clustering of protein sequences utilizing uniform manifold approximation/projection and Gaussian mixed models—identifying novel protein functional groups.

Master Plan For Aging Dashboards | *Tableau, R, SQL* — 2021 – 2022

- Created, and managed over 12 Tableau dashboards, providing comprehensive and real-time insights into a diverse array of health indicators among the elderly population. Implementation involved not only technical proficiency in tableau dashboard creation but also a keen understanding of public health priorities, emphasizing the ability to translate complex data into actionable insights for informed stakeholder decision-making.