RACHEL J. KI

+1 (925) 727 2140 - rachelki0101@gmail.com - linkedin.com/in/rachel-ki

EDUCATION

University of California, Los Angeles — **Los Angeles, CA, USA**
Statistics and Data Science — *2022 - 2024*

University of California, Santa Barbara — **Goleta, CA, USA**
Statistics and Data Science — *2020 - 2022*

TECHNICAL SKILLS

Programming Languages: Python, **R**, **SQL**, Matlab, C++, JavaScript
Skills: HTML/CSS, Tableau, DevOps, Microsoft Office, Collibra, Machine Learning, Neural Networks

WORK EXPERIENCE

Bioinformatics Researcher
UCLA Bioengineering Park Lab, CA, USA — *Janurary 2023 - Present*

- Developed a Metabolic Flux website (www.metabolicflux.org) for gene set enrichment analysis(GSEA) using Python Flask, HTML/CSS, and API integration.
- Utilized statistical methods to interpret gene expression data and identify enriched biological pathways.
- Collaborated with bioengineering professors and graduate students, attending weekly meetings to discuss progress and present findings.

Data Governance Intern
UCLA Health, CA, USA — *June 2023 - September 2023*

- Utilized SQL and Tableau in management and visualization of tables from CLARITY database in DevOps.
- Documented data governance processes, policies, and metadata in Collibra.
- Delivered data-driven solutions, governance, and business intelligence to senior leadership and executive management.

Biology Researcher
UCSB Simpson Lab, CA, USA — *Janurary 2022 - August 2022*

- Utilized R and python to sort and govern data from electron microscopy image datasets for the Drosophila brain and ventral nerve cord.
- Identified neural circuits that control the sequence of movements that constitute grooming behavior.

Network Operations Intern
UCSB Data Center, CA, USA — *September 2021 - Janurary 2022*

- Configured software to optimize rack power distribution across academic, administrative, and research communities, ensuring efficient resource allocation.
- Conducted monthly audits on data center customer equipment, identifying potential issues, and proactively addressing them.
- Developed a web software to visualize data center rack power infrastructure.

RELEVANT COURSE WORK

- **Statistics:** Linear Models, Design & Analysis of Experiments, Regression & Data Mining, Computational Statistics, Nonparametric Methods, Risk Theory, Data Science Concepts, Time Series Analysis
- **Mathematics:** Analysis, Vector Calculus, Linear Algebra, Mathematical Modeling
- **Science:** Chemistry, Physics, Organic Chemistry, Biochemistry, Biology

PROJECTS

- **Prosthetic Arm Control Using Brain Computer Interface**, Seamlessly blended Python machine learning model using advanced neural networks and the application of the OpenBCI headset. Orchestrated encompassing systematic data collection, signal processing, and robotics integration. Github

PUBLICATIONS

- Determination of Metabolic Fluxes by Deep Learning of Isotope Labeling Patterns Link

EXTRACURRICULAR ACTIVITIES

- **Internal Coordinator, Team Lead** in CRUX - September 2022 - June 2023
- **Financial Assistant** in Bruin Belles Service Association Club - September 2022 - June 2023
- **Emergency Room Volunteer** in Santa Barbara Cottage Hospital - September 2021 - August 2022