

Yilan Li

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Skill Summary

4+ Years Research Experience
3+ Years Data Analysis Experience using R, Python, Excel
MySQL, Statistical Analysis, Data Visualization
GitHub for version control, VSCode

Employment History

Contract | Data Analyst Consultant | *Oct 2024 – Present*

- Developing an intuitive and user-friendly application designed to streamline the process of analyzing research result data, [project demo](#).
- The application automatically processes raw data and generates various statistical visualizations and results, including Principal Component Analysis (PCA), boxplots, histograms, and ANOVA with Tukey post-hoc results. This tool enables efficient data exploration, helping researchers quickly interpret and visualize patterns and relationships in their datasets without requiring manual statistical computations or coding.
- On call to provide support and answer data analysis questions, troubleshooting issues.

The Center for Aquaculture Technologies Canada | Research Associate III | *Aug 2021 – Oct 2024*

- **Analyzed research datasets using Python & R**, including gene expression data to identify differential gene activity across various conditions, drug efficacy data to evaluate the impact of pharmaceutical compounds on target diseases, and cell-based assay data to assess cellular responses to treatment and identify potential biomarkers for drug efficacy.
- **Presented findings to clients** through detailed presentations and comprehensive reports, visualizing statistically significant data using Matplotlib, Seaborn, and ggplot2 to highlight key findings and trends, which supported the communication to both technical and non-technical audiences.
- **Implemented custom data pipelines** to automate the transformation, and cleaning of large datasets from commonly used sources.
- **Created a gene annotation library using a SQL relational database** to store gene annotations, including tables for gene names, variants, biological pathways, established relationships between genes, and quantitative expression data. Ensured data exportability for research scientists' reference.
- **Streamlined laboratory processes**, resulting in improved workflow efficiency.
- **Successfully managed multiple projects**, by collaborating closely with team members, ensuring effective communication, and coordinating tasks to meet deadlines and client expectations.

Atlantic Veterinary Collage (AVC) | Student Research Assistant | *Apr 2017 – Oct 2017*

- **Analyzed gene mutation data** to advance research on chondrosarcoma mechanisms under the supervision of Dr. Hartwig.
- **Assisted clinic database records management**, ensuring accuracy and accessibility of information for ongoing studies.

Taste Collection | Manager | *Jun 2018 – Jul 2021*

- Utilized data-driven insights to monitor inventory levels, track trends, and manage merchandise organization to align with sales goals and seasonal promotions.
- Managed inventory and merchandise organization, tracking trends and sales promotions.
- Oversaw daily operations, including hiring, training, and scheduling staff.

Education

University of Prince Edward Island | Bachelor of Science in Biology | *Sep 2016 - May 2021*