Owen Ritchie

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A highly creative, self-driven and functionally bilingual third-year student studying Computer Science at the University of Ottawa, eager to showcase my excellent analytical, programming and communications skills in a collaborative team environment.

View my work: owenritchie.github.io

Skills & Software

➢ **Programming Languages**: Python, Java, R, SQL, additional experience using Go & Scheme

➢ **Data Analysis & Visualization**: Jupyter Notebook, RStudio, QGIS, Looker Studio

➢ **Database Management**: PostgreSQL, SQLite, Firebase

➢ **Web Development**: HTML, CSS, JavaScript, Node.js, Express.js, Flask

➢ **Software**: Git, Microsoft Office (Word, Excel, PowerPoint), Adobe Suite, pgAdmin4, Android Studio, Figma, Zotero

➢ **Data Science & Machine Learning Libraries**: Python libraries such as Matplotlib, Pandas, NumPy, Scikit-learn, as well as Tidyverse packages in R such as dplyr, ggplot2, tidyr, stringr etc.

Education

University of Ottawa, Honours BSc Computer Science (2022-Present)

Experience

Data Analytics Intern, Poisson Consulting Ltd. (May-September 2023)

➢ Cleaned and manipulated raw datasets in R using various Tidyverse packages to support numerous projects on behalf of private and public sector clients, including BC Hydro

➢ Entered and organized large data sets across a variety of file formats through R scripts, and databases such as SQLite and DuckDB

➢ Mapped spatial data obtained from drone surveys using QGIS to monitor changes in fish species populations and growth

➢ Supported quality control through error detection and correction, and the upkeep of Poisson's R packages, including replacing deprecated R functions with newer solutions

➢ Regularly created in-depth presentations proposing solutions to various issues within the company's workflow

Teaching Assistant, Columbia Mountains Institute of Applied Ecology (July 2023)

➢ Assisted with the preparation and delivery of Intro to R, a course demonstrating the capabilities of R, its various packages, and its statistical applications in biology / ecology

Personal Projects

➢ Developed a live chat application called *charDrop*, aimed to allow users to collaborate on a project fast and effectively without having to create an account. I used Python, JavaScript & SocketIO. Users can send texts, as well as blocks of code to other users within a private or public chat room (2024)

➢ Created an interactive Flask application that predicts the seafood consumption of various regions in Oceania based on historic data using a polynomial regression analysis and a variety of Python libraries including Pandas, Scikit-learn, NumPy and Matplotlib (2024)

➢ Created a web application called *Liszty* that uses Spotify's Web API to recommend songs based on an algorithm. Used JavaScript, HTML & CSS (2024)

➢ Created a functioning hotel booking website with Node & Express using a PostgreSQL database. Users could sign in, as well as create, edit & cancel bookings. Hotel staff could process payments and monitor room details (2024)

➢ Using Java, Scheme and Go, developed a similarities image search program to manipulate digital images, compute their histograms and compare images to a dataset (2024)

➢ Created a mobile application for cyclists to pick routes & races using Java, XML & Android Studio (2023)

References

Joe Thorley, Senior Computational Biologist, Poisson Consulting Ltd.
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Ayla Pearson, Intermediate Computational Biologist, Poisson Consulting Ltd.
Email: ayla@poissonconsulting.ca
Cell Number: 250-888-9390

Further references available upon request.