Rola Dali, PhD

Data Wrangler

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% https://rdali.github.io/

SUMMARY

Data wrangler, software developer and problem solver: a research scientist by training, I use various tools to extract actionable information from data.

EXPERIENCE

Bioinformatics Specialist - Tech. Dev. Team

Canadian Centre for Computational Genomics (C3G)

C3G is a research entity that provides tool development and data analysis for genomic researchers.

- Developed 3 End-to-End analysis pipelines in 30% of the expected time (Python, R, WDL)
- · Automated testing and resource monitoring using Jenkins freeing up valuable team time
- Analyzed hundreds of datasets for several international projects around the globe
- Established training workshops twice a year at C3G: helped hundreds of academics in learning how to quality control, process and visualize

PhD candidate in NeuroScience & **Bioinformatics**

McGill University, Computer Science Department

- Developed RobusTAD, a tool to analyze DNA 3D structure
- Designed, conducted and analyzed experiments to understand brain development and disease
- Developed software tools for collaborators to view and analyze data
- Met regularly with team members and collaborators to present and explain findings

Research Intern

Palmerston North University

• Analyzed data in the laboratories of Dr. Barry Scott and Dr. Murray Cox to understand the relationship between fungus and plants, which is important for New Zealand's economy

Research Intern

University of Ottawa

• Collected & analyzed Data in the laboratory of Dr. Mona Nemer, current Chief Science Advisor of Canada, to understand heart development & disease

ACHIEVEMENTS



Top Performer

· Rated "Exceptional" in annual review



Academic Research & Open Source contributer

- · Co-authored 16 scientific articles (Dali R in Pubmed, BioRxiv, and arXiv)
- Contributed to several Open source Code bases: RobustR, GenPipes, MultiQc, **HICUP**



Thinker

· Ranked in top 10% in Canadian national competitions



Productive & Efficient

· Passionate problem solver that completes projects in a fraction of the allocated time

STRENGTHS



Organized Modular Solver

• I am very good at debugging problems by breaking any issue into smaller, more manageable pieces. Thus, I am not easily intimidated by new tasks



Communication Skills

• Good communicator: able to extract & convey information effectively



Eye for detail

• Detail oriented, consistent processing & execution



Experienced Writer

· Very Good at writing data analysis reports & project grants

EXPERIENCE

Research Intern

University of Ottawa

 Collected & analyzed data in the laboratory of Dr. Rees Kassen to understand bacterial and fungal evolution

SELECT PROJECTS

Insurance Estimator using Montreal Fire Department Data

Built an insurance pricing estimator based on estimating fire risks across Montreal

Computer Vision: arithmetic operations

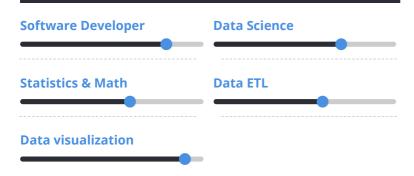
Developed a Feed Forward Neural Network using Keras to identify and solve arithmetic operations in images

Language Classification by Character Freq.

Developed a Random Forest classifier that can predict language based on character frequency

- Scraped various Reddit pages in different languages and used NLP to clean and extract language features
- Tested and trained several different classifiers using SciKit Learn

INDUSTRY EXPERTISE



FIND ME ONLINE



GitHub

www.github.com/rdali



Personal Site

https://rdali.github.io/



LinkedIn

https://www.linkedin.com/in/rola-dali-phd-63b7133a/

SKILLS

Software & Coding

Python R Java Bash SQL
HPC/Cloud git/Jenkins

Data Wrangling

Quality Control Data Analytics

Pipeline Development

Data Visualization Math & Statistics

EDUCATION

Certificate in Data
Science and
Machine Learning
McGill University

Machine Learning

2018 - 2019

Large Data

PhD in
Neuroscience &
Bioinformatics
McGill University

GPA **4.0** / 4.0

2011 - 2017

Honors & specialization in Biochemistry University of Ottawa

GPA

9.8 / 10

2006 - 2010

MY LIFE PHILOSOPHY

"We are what we repeatedly do. Excellence, then, is not an act, but a habit."