

GUOJUN MA

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SUMMARY

Dynamic recent graduate with a passion for data science, backed by a solid foundation in statistical analysis, computer programming, and scientific methodologies. Experienced in leveraging data to extract valuable insights in various domains, as showcased through sample projects on my webpage. Passionate in contributing to scientific discovery and innovation.

EDUCATION

University of Victoria, Victoria, BC 08/2023

Master of Science, Statistics

- GPA:3.7
- Award: UVic graduate fellowship
- Project: A meta-analysis of genome-wide association with body mass index.

University of Alberta, Edmonton, AB 06/2020

Bachelor of Science, Math and Economics

- Graduated with distinction
- Award: Jason-Lang Scholarship

WORK HISTORY

Teaching Assistant 09/2020 – 08/2022

University of Victoria, Victoria, BC

- Taught mathematics, statistics, and data science courses to undergraduates.
- Showcased accuracy and attention to detail by constructing a comprehensive grading rubric to mark assessments.
- Developed effective written communication skills when providing constructive feedback to assist students with learning.
- Gained time management skills from marking assessments for over 200 students in the class within one week.

Data Analyst 05/2021 – 08/2021

IOTO International, Vancouver, BC

- Conducted data collection and cleaning of relevant data from the legislative records.
- Utilized data visualization software to identify patterns and generate hypotheses.
- Employed statistical methods to design experiments and test hypotheses.
- Created predictive models for election outcomes and parties' performances.

- Leveraged analysis insights to improve political transparency and accountability.

RESEARCH EXPERIENCE

University of Victoria

2022-2023

Master's Project: A meta-analysis of genome-wide association with body mass index

Supervisor: Dr. Xuekui Zhang

- Review the statistical models and methods used in genome-wide association studies and meta-analyses.
- Perform the extraction and cleaning of health data using specialized bioinformatics tools such as Plink.
- Conduct a meta-analysis to identify shared genetic variants associated with BMI and potential population-specific variants.
- Utilize deep learning methods to predict disease risk based on health data.
- Improved understanding of the genetic basis of anthropometry and facilitated personalized healthcare development.

University of Alberta

2019-2020

Senior research project: Double exponential numerical integration method

Supervisor: Dr. Hassan Safouhi

- Perform the simulation study to investigate the stability and accuracy of the double exponential integration method.
- Present the results to colleagues and supervisors.

PUBLICATIONS

Haslehurst, M., Joshi, A., Ma, G., Simon, S., & Tung, S.-N. (2021). Analytics and visualization of political data. PIMS, Vancouver.

CERTIFICATES

BOLT UBC Case Competition

05/2024

Issuing organization: UBC

PIMS Math to Power Industry Workshop

08/2021

Issuing organization: PIMS

Coursera courses:

Machine learning, Reinforcement learning, Introduction to genetics and evolution, Game theory.

SKILLS

Statistical analysis:

Bayesian inference	Generalized linear model	Time-series analysis
Experimental design	Causal inference	Machine Learning

Computer skills:

R Programming	Python Programming	SQL
Relational Database	Git and GitHub	Linux

High-performance Computing Canada

Bash Scripting

Biostatistics:

DNA-seq

RNA-seq

DNA Methylation

Single-cell analysis

Languages: Native speaker in Mandarin and Cantonese; Proficient in English.

Others:

Report Writing

Oral Presentation

Independent Research

Multi-tasking

Analytical problem-solving

Collaboration

REFERENCES

Dr. Hassan Safouhi, [Professor]

[Department of Mathematics]

[University of Alberta]

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[University of Alberta]

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