IAN R. CAIRNS

Portland, OR
ian.cairns@hushmail.com

EDUCATION

Master of Science - Statistics, Portland State University 2021 - 2023
Thesis: MCMC using Hamiltonian dynamics
GPA: 3.94/4.0

Bachelor of Science - Mathematics, Western Washington University 2015 - 2017
GPA: 3.31/4.0

SKILLS

Technical Skills R, Microsoft Excel, LaTeX, SAS

EXPERIENCE

Adjunct Instructor - Mathematics August 2023 - Present
University of Portland *Portland, OR*

- Instructing MTH 161 - Elementary Statistics course to undergraduate students.
- Developing comprehensive lecture materials, assignments, and assessments to facilitate effective learning.
- Demonstrating strong communication skills and the ability to explain complex ideas clearly.

Graduate Teaching Assistant April 2023 - June 2023
Portland State University *Portland, OR*

- Instructed bi-weekly recitation sessions for STAT 351 - Statistics for Engineering, reinforcing key concepts and providing hands-on practice exercises to enhance student learning.
- Evaluated and graded approximately 120 homework assignments per week, providing constructive feedback to support student progress and understanding.
- Collaborated with the course instructor to align recitation sessions with lecture material, ensuring a cohesive and effective learning experience for students.
- Demonstrated strong organizational skills and the ability to manage multiple tasks simultaneously, ensuring timely grading and feedback delivery.

Statistics Tutor Jan 2022 - April 2023
Portland State University *Portland, OR*

- Provided one-on-one tutoring to undergraduate students in various statistics courses, tailoring explanations and techniques to individual learning styles and needs.
- Conducted a weekly in-person review session for STAT 243, reinforcing key concepts and addressing common areas of difficulty through practice problems and interactive discussions.

Underwriter II Feb 2018 - Sep 2021
Kaiser Permanente *Seattle, WA*

- Developed premium forecasting models and actuarial tools, leveraging statistical techniques and data analysis to support informed business decision-making and strategic planning.
- Collaborated cross-functionally with teams including actuaries, data analysts, and business stakeholders to align risk assessment methodologies and ensure consistent application across the organization.

PROJECTS

Bootstrap regression analysis Applied bootstrap methods to generate bias-corrected and accelerated (BCa) confidence intervals as a means for variable selection. Compared the bootstrap approach to conventional parametric stepwise variable selection techniques, evaluating their effectiveness and suitability for different data scenarios.