IAN ARRIAGA-MACKENZIE

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iansam.com

Software Development ● Applied Statistics ● Machine Learning

SKILLS

R, Bash, Python, Linux, Matlab, SAS, git, Julia, C++, PLINK, bedtools, Samtools, VCFtools, ADMIXTURE, Galaxy, Ingenuity Pathway Analysis, PennCNV

Optimization, Mixture Models, Algorithm Design, Genetics

Jupyter, Cluster Computing, Containerization, Docker, Open-Source Software

EXPERIENCE

Center for Innovative Design & Analysis Research Assistant

AUG 2021 - PRESENT | DENVER, CO

- Assessed gene-level factors impacting acetaminophen use and liver damage.
- Developed pipeline for Copy Number Variant analysis within genomic data.

Hendricks Research - CU Denver Research Assistant

MAY 2019 - AUG 2021 | DENVER, CO

- Published novel method of population-level ancestry estimation with summary genetic data.
- Developed and implemented minimization/maximization algorithms.
- Deployed interactive Shiny web-apps to display research results.
- Genome wide association study of birth height in a Guatemalan cohort.

University of Colorado Denver Consulting Volunteer

AUG 2019 - DEC 2019 | DENVER, CO

- Assessed the impact of marijuana on sleep using electroencephalogram (EEG) data.
- Built signal decomposition framework using Fast Fourier Transforms.

EDUCATION

MS - Statistics University of Colorado Denver

AUG 2021

- C.W. Cotterman Award - The American Journal of Human Genetics - 2021
- CLAS Outstanding MS Graduate - University of Colorado Denver - 2021

BS - Mathematics University of Colorado Denver

MAY 2020

- Undergraduate Research Opportunity Program Grant - University of Colorado Denver - 2019