AUSTIN ALLEN

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EDUCATION

Duke University May 2025

Master | Biostatistics

Brigham Young University-Idaho Jul 2023

Post-bachelor | Data Science

Western Governor's University

Dec 2021

Bachelor | Healthcare Administration

EXPERIENCE

Biostatistician - Intern Jan 2024 - Present

Duke Cancer Institute | Durham, NC

- Independently conduct statistical analysis, implement machine learning models, and perform data cleaning using Python and R, gaining extensive oncology experience during an internship at a leading medical institute
- Develop a predictive model to classify breast tumors, aiming to prevent unnecessary interventions for 2-3 million patients by accurately differentiating benign fibroadenomas from phyllodes tumors
- Designed and implemented an observational study using clinical trial data to explore the effects of muscle wasting on overall survival in cancer patients

Research Assistant Apr 2022 - July 2023

Brigham Young University-Idaho | Rexburg, ID

- Created an R Shiny app leveraging the Primer3 API to design PCR primers for genetic screening of genes linked to metabolic diseases
- Developed a reproducible experiment using CRISPR-Cas9 to train 100+ students each year on gene editing as part of a BYU-Idaho course

Data Science Consultant Sep 2022 - Apr 2023

Brigham Young University-Idaho Data Science Society | Rexburg, ID

- Consulted with semiconductor company Onsemi to develop a web-based app to compare news articles and public opinion to inform business decisions
- Collaborated with a team of 5 data scientists to integrate various news outlet APIs into a single application built primarily using Python

$P\,R\,O\,J\,E\,C\,T\,S$

Neural Networks: Bacterial Classification

Jul 2024 - Present

• Using PyTorch, build a classification model to differentiate bacteria from genomic data

Productivity Application Suite

May 2024 - July 2024

 Using Python and SQLite, developed a suite of desktop productivity applications to be used for project management, Google Calendar integration, goal setting, and time management

GWAS Toolkit May 2024 - July 2024

 Co-authored a Python library used in genome-wide association studies to provide both GWAS results and important plotting functions based on matplotlib

CORE SKILLS

- Programming languages: Python, R, SQL, C++
- Machine Learning
- Version Control Using Git and GitHub
- Linux

- Statistical Analysis
- Relational Database Management
- ETL Process
- Scientific Research and Presentation