

# Austin Stephen

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## Education

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### University of Wyoming

GPA 3.96/4.0

### BS in Computer Science, BS in Statistics

September 2019 – May 2023

- Trustee Scholar – 4 year *academic full-ride scholarship*.
- Honors Minor candidate – *Awarded for interdisciplinary coursework and senior thesis.*
- Wyoming Research Scholar Program (WRSP) - \$26,700 in research funding over 4 years.
- Awards and memberships - *President's List, Upsilon Pi Epsilon, Equality in Computing.*

## Experience

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### University of Wyoming (MALLET Lab)

Laramie, WY

#### *Automated Machine Learning*

September 2021- Current

- Wrote two blog posts outlining a novel automated machine learning pipeline in R using MLR3.
- Demonstrates proof of concept for automatically partitioning input data via unsupervised models to expose different underlying distributions, then training supervised models for statistical inference.

#### *Stanford AI Index Experimental Contributions*

October 2020 - January 2021

- Ran computational experiments benchmarking SAT solvers using R, SLURM scheduler, and Docker.
- Publication: "The AI Index 2021 Annual Report." Stanford University.  
[aiindex.stanford.edu/wpcontent/uploads/2021/11/2021-AI-Index-Report\\_Master.pdf](https://aiindex.stanford.edu/wpcontent/uploads/2021/11/2021-AI-Index-Report_Master.pdf). Cited on page 72.

#### *Automated Algorithm Selection on QBF Solvers*

October 2019 - September 2020

- Ran multiple CPU years of computational experiments using the SLURM scheduler, R, and Docker.

### Goldman Sachs

Salt Lake City, UT

#### *Engineering Summer Analyst in Credit Risk*

June 2022 - August 2022

- Developed a Python application generalizing calculations on a set of credit products for the firm.
- Designed a distributed workload scheme to meet SLAs at the production scale of the portfolio.

### Carnegie Mellon University

Pittsburgh, PA

#### *Summer Research Intern REU*

May 2021 - July 2021

- Presented the final project at the *CMU Sports Analytics Conference* to over 100 virtual attendees.
- Advised by the director of analytics at the Atlanta Hawks. Contributed, as first author, to a new methodology for analysis of player fatigue with in-game tracking data and player performance measures.
- Used Model-based and hierarchical clustering, KNN clustering, and PCA in exploratory analysis.
- Used GAMs, XGBoost, random forest, kernel regression, and Lasso/Ridge regression for modeling.

## Projects

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### Complete portfolio of sample work: [austinstephen.github.io](https://austinstephen.github.io)

#### ArXiv Paper, "Tired of Misattribution, Modeling Player Fatigue in the NBA"

- Offer an analysis of cross game player fatigue in the NBA using in-game tracking data on players, and tabular data sources on the team. View it at <https://arxiv.org/abs/2112.14649>

#### Datathon Goldman Sachs Challenge, "Lets Stock About the Environment"

- First place finish in 24-hour challenge modeling the relationship between stock market volatility and the environment. View it at [devpost.com/software/394698](https://devpost.com/software/394698)

## Programming Languages

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Advanced: R

Proficient: C/C++, Python, Haskell, SQL

Fundamentals: Java, JavaScript