# Austin Stephen

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## Education

**University of Wyoming**                                                                                 Laramie, Wyoming

**BS in Computer Science**, **BS in Statistics**, and minor in Honors College candidate                   GPA 4.0/4.0

Trustee Scholar, 4-year academic full ride                                                Anticipated Grad. May 2023

Wyoming Research Scholar (WRSP), 26,700 in research funding over 4 years

## Research Experience

**University of Wyoming MALLET lab**                                                         Laramie, Wyoming

*Undergraduate Research Fellow in AI, Funded by WRSP*                                      October 2019 - Current

- Automated algorithm selection and quantified Boolean formulas
  - o Contributed an algorithm selection scenario to current ASLIB library in R.
  - o Used SLURM HPC schedular, R, and Bash scripting to run multiple CPU years of computational experiments.
- Stanford AI Index survey of automated algorithm selection contribution
  - o Ran a suite of computational experiments included in the 2021 AI index, referenced on pg. 72.

**Carnegie Mellon University REU**                                                      Pittsburgh, Pennsylvania

*Summer Statistics Research Intern*                                                         May 2021 - July 2021

- Selected as part of a 15-person cohort to work on research in statistics and data science.
  - o Used model-based and hierarchical clustering, principal component analysis, GAMs, KNN, random forest, gradient-boosted trees, kernel regression, and shrinkage techniques like Lasso and Ridge regression.
- Advised by Max Horowitz, the director analytics at the Atlanta Hawks, I contributed first of its kind analysis on player fatigue in the NBA using in-game tracking data and an aggregation of player performance measures.

## Selection of Publications & Presentations

**Modeling Player Fatigue in the NBA**                                                  Pittsburgh, Pennsylvania

*Author of paper,* publication pending                                                             August 2021

**Carnegie Mellon CMSAC Project Showcase**                                              Pittsburgh, Pennsylvania

*Presentation titled "Modeling Player Fatigue in the NBA"*                                            July 2021

Delivered findings on player fatigue to faculty at CMU, and industry leaders in the NBA, NFL, and NHL.

**Stanford 2021 AI Index**                                                                    Laramie, Wyoming

*Experimental Data Contributor (pg. 72)*                                                      December 2020

Zhang, Daniel, et al. "The AI Index 2021 Annual Report." Stanford University.

index.stanford.edu/wp-content/uploads/2021/03/2021-AI-Index-Report_Master.pdf

**Wyoming Research Scholar Virtual Symposium**                                                 Laramie, Wyoming

*Presentation titled "Improving Automated Machine Learning"*                                  November 2020

Detailed successes on incorporating algorithm features into algorithm selection models.

## Languages

**Extensive Experience:** R

**Moderate Experience:** Bash Shell Scripting, Python, C, and C++

**Basic Experience:** X86 assembly language, Java, JavaScript, PSQL, Html, and CSS

## Memberships & Leadership

**Alpha Kappa Psi**, **Upsilon Pi Epsilon**: Director of Community Service 2020-2021

**Google Developer Student Club:** Member