

# ALEX STERN

Graduate School of Data Science, University of Virginia

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Charlottesville, Virginia  
alexcsstern

alexcsstern



## EXPERIENCE

### Football Analytics Consultant

#### University of Virginia Football Team

July 2019 – April 2021 Charlottesville, Virginia

- Co-developed a website that allows coaches to interact with and manipulate visualizations to assist with game-planning
- Developed predictive models for opponent prospecting and game-planning purposes
- Relayed descriptive statistical research to the coaching staff in a colloquial manner that was easy to digest
- Developed bayesian models which control for opponent positional strength for transfer prospect evaluation

### Teaching Assistant, Software Development Methods

#### University of Virginia, Department of Computer Science

January 2019 – May 2019 Charlottesville, Virginia

- Assisted students during office hours with homework, projects, and technical questions related to software development in Java
- Participated in a TA practicum course to learn how to better assist students

### Data Science Intern

#### Havas Helia

May 2018 – August 2018 Richmond, Virginia

- Built customer lookalike models used both for in-house tests and by clients
- Wrote Python packages to aid in the retrieval and manipulation of SQL Server data

## PUBLICATIONS

### Practical Applications of Space Creation for the Modern NFL Franchise

#### NFL Big Data Bowl, 2020

A statistical research paper utilizing NFL player tracking data to describe the quantitative/algorithmic measurement of space creation by offensive linemen for ball carriers and the consequential monetary discrepancies between a more advanced player grading system and current player salaries.

<https://www.github.com/alexcsstern/Big-Data-Bowl/blob/master/BigDataBowl.pdf>

## MOST PROUD OF



### NFL Big Data Bowl

Player Scouting Algorithm Using Player Tracking Data

- Presenter: 2020 NFL Combine



### A Data Science Student's Algorithm Has the NFL's Full Attention

<https://news.virginia.edu/content/data-science-students-algorithm-has-nfls-full-attention>

### Talking Analytics with Alex Stern (008)

<https://www.25hourideas.com/podcasts/talking-analytics-with-alex-stern>

### Algorithms in the War Room

<https://open.spotify.com/episode/0sR2iogdep7X1p5DSliNi?si=3crR3EMyT8Scp3qCPApbKw&nd=1>



### Honorable Mention, Sports Info Solutions Football Analytics Challenge

Multi-Level Player Value Evaluation Model



### Finalist, MIT Sloan Sports Analytics Conference Hackathon

Physics-Based Pitch Type Analysis

## STRENGTHS

Python R Java C++ SAS SQL

Bayesian Inference Graphical Models

Machine Learning Algorithms Deep Learning

Apache Spark Computational Efficiency

Survival Analysis Google Cloud API

## EDUCATION

### M.S. Data Science

#### University of Virginia

July 2020 – May 2021

### B.A. Quantitative Statistics, Computer Science

#### University of Virginia

August 2017 – May 2020

- Dean's List of Distinguished Students