

David Almona

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PROFESSIONAL SUMMARY

Data professional focused on statistical modeling, machine learning, and data visualization. Proficient in Python, R, and SQL for processing large datasets, evaluating predictive models, and building data pipelines. Experienced in sports analytics, specifically building classification algorithms and automated reporting systems using large scale tracking data. Applies a quantitative background to answer direct business questions and build practical tools that support daily operations.

EDUCATION

Centre College

Danville, KY

Bachelor of Science, Economics; Minor, Data Science

May 2026

- Cumulative GPA: 3.61 | Major GPA: 3.67
- Relevant Coursework: Applied Machine Learning, Statistical Modeling, Econometrics, Empirical Analysis, Data Visualization, Modern Calculus I, Managerial Finance, Programming and Problem Solving

RESEARCH EXPERIENCE

Undergraduate Research Fellow

Jun 2025 – Jul 2025

Carnegie Mellon University, Department of Statistics & Data Science

Pittsburgh, PA

- Competitively selected as 1 of 16 students for a fully funded 8-week summer research program
- Developed machine learning models to predict pressing effectiveness in professional soccer, analyzing 252,646 pressing sequences from MLS regular season games using 10Hz player tracking data provided by SkillCorner
- Collaborated with a fellow from Carnegie Mellon University and Head of Analytics at Charlotte FC
- Presented findings at the Carnegie Mellon Sports Analytics Conference (Oct 2025) and the American Soccer Insights Summit (Jan 2026)

Undergraduate Researcher

Sep 2024 – Nov 2024

Centre College

Danville, KY

- Built an interactive RShiny dashboard analyzing shot data for the Centre College Division III women's soccer team
- Presented findings in a poster session at the Carnegie Mellon Sports Analytics Conference (Nov 2024)

PROFESSIONAL EXPERIENCE

Basketball Analytics Intern

Feb 2026 – Present

Los Angeles Sparks (WNBA)

Remote

- Scraped 400+ historical WNBA mock drafts from 80+ sources; built an RShiny app to streamline data entry across hundreds of sources with inconsistent HTML structures, storing results in an internal database
- Applied survival analysis to mock draft data to estimate the probability of each prospect being available at a given pick
- Researched stabilization rates for WNBA player metrics to determine reliable sample size thresholds
- Automated video playlist generation with custom R functions that query internal databases and filter clips by actions, player, team, or game

Business Program Development Fellow

Sep 2025 – Dec 2025

Sustainable Business Network (SBN) of Massachusetts

Cambridge, MA

- Developed the Technical Assistance Pilot Program from scratch to connect local food micro-entrepreneurs with specialized consultants
- Designed multi-step intake process including dual intake forms (20+ questions each), interview framework, database management system, and memorandum of understanding template
- Facilitated consultee interviews to identify foundational business gaps and matched organizations with consultants based on readiness, expertise alignment, and availability

Data Analytics: Qualitative & Quantitative Insights Extern

Mar 2025 – Jun 2025

Beats by Dr. Dre

Remote

- Analyzed 4,628 consumer survey responses and scraped product reviews using Python (Pandas, NumPy, TextBlob) to identify market opportunities and feature preferences for a wireless speaker product launch
- Delivered strategic assessment recommending \$150–250 price point based on consumer insights, demographic segmentation, sentiment analysis, and competitive gap analysis

PUBLICATIONS & PRESENTATIONS

Almona, D., Rayce, N., & Wicker, D. (2026, January). [*Forced Turnover: Evaluating Pressing Effectiveness in Soccer*](#). Oral presentation at the American Soccer Insights Summit.

Almona, D., Rayce, N., & Wicker, D. (2025, October). [*Forced Turnover: Evaluating Pressing Effectiveness in Soccer*](#). Oral presentation at the Carnegie Mellon Sports Analytics Conference, Pittsburgh, PA.

Almona, D., Rayce, N., & Wicker, D. (2025, July). [*Forced Turnover: Evaluating Pressing Effectiveness in Soccer*](#). Research report. Carnegie Mellon University.

Almona, D. (2024, November). *Centre College Women's Soccer Analytics Dashboard*. Poster session, Carnegie Mellon Sports Analytics Conference, Pittsburgh, PA.

PROJECTS

[Chasing Imperfect Passes: Into the Life of a Receiver](#)

Sep – Dec 2025

2026 NFL Big Data Bowl | R | Partner: Sammy Davis

- Analyzed how quarterback ball placement alters receiver movement while the ball is in the air, using player tracking data from NFL games
- Developed a placement-based metric capturing receiver adjustment through trajectory deviation, acceleration, and turning behavior

[Forced Turnover: Evaluating Pressing Effectiveness in Soccer](#)

Jun – Jul 2025

CMU Sports Analytics Camp | R | Partners: Natalie Rayce (CMU), Daniel Wicker (Charlotte FC)

- Developed ML classification models on 252,646 pressing sequences using 10Hz SkillCorner tracking data from MLS regular season games
- Evaluated model performance and identified key predictive features of successful pressing in professional soccer

[Loan Default Prediction](#)

Mar 2026

Applied Machine Learning Course | Python

- Modeled loan default risk on 307,000+ Home Credit applicants, comparing 6 ML algorithms with 5-fold cross-validation
- Tuned decision threshold via F2 score to prioritize recall, reducing costly false negatives for the lender

[Predicting Pulsars & Forest Cover](#)

Apr 2026

Applied Machine Learning Course | Python

- Evaluated 5 classifiers on 48,000+ rows using scikit-learn Pipeline and 5-fold GridSearchCV
- Achieved 0.728 macro F1 on 7-class forest cover prediction; SVM (RBF) and Random Forest tied for top performance

[NBA Honors Selections, 2024–25 Season](#)

May 2025

Course Project | R | Partner: Vedant Bhong

- Predicted end-of-season NBA honors (All-NBA, All-Defensive, All-Rookie teams) using regular-season box score statistics
- Research featured in Centre College campus news coverage

[Predicting MLB Player Usage](#)

Feb 2025

Cincinnati Reds Baseball Analytics Student Hackathon | R

- Predicted total playing time (plate appearances / batters faced) for MLB players using historical performance and usage data

[National Olympic Performance: Determinants of Medal Counts](#)

Dec 2024

Econometrics Final Paper | Stata

- Built econometric models identifying macroeconomic and demographic predictors of national Olympic medal counts across countries

[Centre College Women's Soccer Analytics Dashboard](#)

Nov 2024

R, RShiny

- Built an interactive dashboard to visualize and analyze shot data for a Division III collegiate women's soccer team

HONORS & AWARDS

CSDS Conference Travel Award Feb 2026
Texas A&M University & Collaborative for Sport Data Science (CSDS)

- Competitive funding supporting student attendance and presentation of sport data science research at leading academic conferences

CFSI Values Award Dec 2025
College for Social Innovation

- Recognized for capacity building and lasting organizational impact during fellowship placement

Academic All-District Honor Roll Jun 2024
College Sports Communicators (CSC)

Dean's List (×3)
Centre College | Awarded for cumulative GPA ≥ 3.60

Combs Achievement Scholarship Aug 2024
Centre College

Colonel Scholarship Aug 2022
Centre College

TECHNICAL SKILLS

Programming Languages: Python, R, Stata, SQL

Machine Learning & Statistics: scikit-learn, tidymodels, caret, XGBoost, Random Forest, SVM, logistic regression, cross-validation, NLP/sentiment analysis

Data Wrangling & Analysis: Pandas, NumPy, TextBlob, tidyverse, dplyr, data.table

Visualization & Reporting: ggplot2, matplotlib, seaborn, RShiny, Tableau, Power BI, Jupyter Notebook, Quarto

Developer Tools: Git, GitHub, Microsoft Excel, Trello

LEADERSHIP & SERVICE

Co-President, Centre Brother-to-Brother Club *Centre College*

Resident Assistant *Centre College*

Student-Athlete, Track and Field (100m, 200m) *Centre College*

MENTORSHIP & PROFESSIONAL DEVELOPMENT

- Mentee, 2026 NFL Big Data Bowl Mentorship Program (selected from competitive applicant pool)
- Mentee, WeStutter@Work Mentorship Program
- Selected Participant, Philadelphia Eagles Virtual Development Series (Business Operations)