David Almona

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EDUCATION

Centre College Danville, KY
Bachelor of Science, Economics; Minor, Data Science *May 2026*

- Cumulative GPA: 3.64 | Major GPA: 3.78
- 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*

- Create statistical player comparisons and analyze individual and team performance to support roster and game strategy decisions
- Scrape and compile data from public websites to build and maintain internal analytics databases and projection models
- Contribute to game-by-game, seasonal, and player evaluation reports, including league-wide trend research

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, 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)