CHRIS CALLENDER

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[Portfolio Website](#)   [LinkedIn](#)   [Github Profile](#)   [Kaggle Profile](#)   [Youtube](#)

PROFILE

Aspiring **Baseball Operations and Analytics Professional** with a rigorous background in mathematics. Expert in leveraging R, Python, and SQL to derive insights from Statcast-level data. Proven ability to build predictive models (WAR, wOBA) and communicate complex statistical findings to diverse stakeholders. Very hard worker with excellent problem solving skills, communication skills, a high attention to detail, and teaching experience.

EDUCATION

Quinnipiac University, Hamden, CT
Bachelor of Arts in *Mathematics,* Minor in *Economics*
Graduated: May 2023 | GPA: 3.98, Summa Cum Laude
- James Fickes Award for Mathematical Excellence
- Philosophy Honor Society

BASEBALL ANALYTICS PROJECTS

Sabermetrics & PCA Analysis
- Completed this project for my senior mathematics course at Quinnipiac
- Used R and Excel to analyze player value using Principal Component Analysis (PCA)
- Engineered a weighted "Greatness Index", reducing over 15 dimensions of player value into a single comparative metric
- Presented findings with statistical graphs to faculty and students

Predictive Modeling: Advanced MLB Metrics
- Cleaned and analyzed advanced metrics (WAR, wOBA, wRC+) in R
- Built machine learning model to predict WAR
- Determined wOBA, wRC+, and OPS+ as best predictors of hitting ability
- Authored research paper with LaTeX and visualizations
- Developed a Machine Learning model (linear regression) to predict season-long WAR using wOBA, wRC+, and OPS+ as primary features, achieving an R-squared value of .9215

MLB Pitching Analysis (2025 Season)
- Analyzed pitching performance using R, and identified ERA, FIP, xERA, and xFIP as key pitching metrics
- Evaluated pitching performance volatility using t-tests and correlation analysis to isolate the impact of exit velocity and strikeout rate of ERA/FIP discrepancies

TECHNICAL SKILLS

- Programming: R (tidyverse, baseballr), Python (pandas, Scikit-Learn, NumPy), SQL
- Tools & Visualization: ggplot2, Tableau, Matplotlib, Plotly, LaTeX, Excel (VLOOKUP/Pivot)
- Statistical Analysis: PCA, Linear Regression, Hypothesis Testing (t-tests), Predictive Modeling
- Domain Knowledge: Sabermetrics (WAR, wOBA, FIP), Pitching Mechanics, Scouting Reports
- Other: Problem Solving, Communication, Attention to Detail

RELEVANT COURSEWORK

Applied Statistics   Machine Learning   Econometrics   Math Modeling   Real Analysis

ADDITIONAL EXPERIENCE

Substitute Math Teacher, North Branford High School (March 2025-May 2025)
- Taught Algebra and Geometry
- Fostered a positive learning environment
- Communicated complex topics to students, while remaining calm and positive

Clerk, Big Y, North Branford, CT (September 2018-Present)
- Maintained store safety and cleanliness
- Delivered excellent customer service
- Operational Reliability and long-term tenure