

# Richard Lim

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## Education

### Villanova University

May 2024

*B.S. in Statistics; Minor in Mathematics* | GPA: 3.52

**Coursework:** Data Science, Algorithms and Data Structures I and II, Applied Statistical Models, Data Base Systems, Linear Algebra, Design of Statistical Experiments, Mathematical Statistics I, Discrete Mathematics, Calculus I, II, and III

## Experience

### Villanova Baseball

Villanova, PA

Data Analyst

February 2022 - Present

- **Improved team record from 3-13-1 to 16-16** by producing in-depth scouting reports with data analyses on opposing teams' pitching and hitting tendencies.
- **Analyzed opponents' data** utilizing R and Synergy Baseball. Communicated findings and analyses with analyst team.
- **Presented data analyses to coaches** using strong written and verbal communication skills. Developed in-game and developmental strategies with coaches, using analyses.

### Villanova Recreation

Villanova, PA

Fitness Center Receptionist

August 2021 - Present

- **Reduced damages by 95% and accidents by 98%** by providing comprehensive instructions to over 50 daily facility users on the proper and safe operation of equipment.
- Consistently enforced all facility and program policies **resulting in a 100% adherence to policies**.

### CoSIBS

Denver, CO

Fellow

June 2022 – August 2022

- **Built a random forest model with an out-of-bag error rate of 3.87%:** Implemented machine learning techniques, including random forest modeling, to a large dataset and identified predictors of obesity in American youth.
- **Developed presentation given to non-technical audience** by using data wrangling and data visualization techniques. Produced models of geospatial distribution, decision trees, and partial dependence plots.
- **Finished top 5 in a collaborative 6-hour long hackathon.** Implemented machine learning models, including random forest and linear regression to predict the duration of intubation. Presented analysis to panel of judges.

## Projects

### Predicting 2023 NBA Free Agency Per Year Salaries | R / Tableau / Excel

Performed data collection, cleaning, and analysis on Per Game and Advanced stats of 2022 NBA free agents on their most recent playing season. Created a multiple linear regression model and identified significant factors that contributed to per year salary and implemented to 2023 NBA Free Agency class. Created dashboards for visualizing insights with Tableau.

### Performing Full Factorial Design to See Which Factors Affect Free Throw Percentage | R / Excel

Designed and performed a Full Factorial experiment to find which of three factors impact Basketball free throw percentage. Utilized R to generate and analyze interaction plots, ANOVA tables, and residual plots to uncover influential drivers of free throw percentage.

## Activities

Sports Analytics Club, Villanova University

August 2021 - Present

Club Sailing, TIDE Representative, Villanova University

August 2021 - Present

- **Increased participation of minority groups by 500%** by leading team in discourses on diversity, equity, and inclusion and how to present themselves in a predominantly Caucasian sport.

Villanova Leadership Program, Villanova University

January 2022 - April 2022

## Skills

**Programming:** Python (Matplotlib, Seaborn, Sklearn), R (dplyr, tidyr, ggplot2, Shiny), SQL, Java, HTML

**Analysis Techniques:** Logistic Regressions, Decision Trees, Random Forests, Hypothesis Testing, MLR Regressions

**Tools:** Kaggle, R Markdown, Jupyter, PyCharm, RStudio, VSCode, Tableau, Excel (Power Query, V-Look Up, Pivot Tables)

**Languages:** Fluent in English and Korean, proficient in Spanish