

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 random forest machine learning 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