Zachariah Zanger M.S.

Assistant General Manager Intern, Wareham Gatemen Baseball | Director of Quantitative Studies, University of San Francisco Baseball
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PROFESSIONAL EXPERIENCE

WAREHAM GATEMEN BASEBALL — Cape Cod, MA
Assistant General Manager Intern — ***April, 2019 – September, 2019***

- Developed alternative frameworks of player and team valuation pertaining to simulation, linear programming, and Bayesian inference among other applications. In addition to alternative frameworks, learn to evaluate with in game amateur scouting framework. Execute as much of the quantity of work outlined above in either Python or R.
- Developed and utilized an automated draft model for a 2019 Cape Cod League draft exercise. The model was built upon utility economics and linear programming principles. In the draft exercise, cost was a modeled constraint.
- Developed automation of analysis with Blast Motion Data utilizing frameworks such as Autocorrelation, Bayesian Inference, and Machine Learning. Development of Shiny web app for Blast Motion Data is an ongoing implementation.

UNIVERSITY OF SAN FRANCISCO BASEBALL — San Francisco, CA
Director of Quantitative Studies — ***September, 2018 – Current***

- Lead the University of San Francisco Quantitative Studies Team to be the Quantitative Support and Research arm of the University of San Francisco Baseball program. This entails working with student analysts individually, in addition to pursuing personal research, during every evening of the week as well as all day on weekend days.
- Act as the lead communicator to coaches and players in the presentation of ideas/models/materials developed by the Quantitative Studies Team.
- Develop the application of items, including, but not limited to, the automation of analysis, Monte Carlo and Markov Chain Simulation, Bayesian Statistical Inference, Data Visualization, and Fixed Income Valuation framework to player scholarships.

FEDERAL HOME LOAN BANK OF SAN FRANCISCO — San Francisco, CA
Fixed Income Analyst — ***October, 2017 – April, 2019***

- Value the bank's portfolio of Agency and Non-Agency mortgage securities, including: Mortgage Backed Security (MBS) Pools, Collateralized Mortgage Obligations (CMO), Interest Only tranche bonds, and Municipal Housing bonds among other fixed income securities on a monthly and ad-hoc basis.
- Monitor daily high-level signals of asset appreciation/depreciation in Fixed Income markets. In addition, create quarterly duration stress tests on portfolio securities to measure interest rate sensitivity.
- Integrate machine learning principles of prediction and classification to the bank's portfolio of whole loans in R.

DENVER NORTH HIGH SCHOOL — Denver, CO
Baseball Coach — ***May, 2014- May, 2016***

- Posted an overall 22-6-2 record as manager of Freshman and JV (after being promoted) clubs in 2 seasons of managing, in addition to participating and sometimes coordinating offseason Baseball program.
- Served as a mentor to the young men by preaching the values of relentless preparation, mental toughness, and commitment, in an effort to help prepare them for their lives after high school

EDUCATION

UNIVERSITY OF COLORADO BOULDER, LEEDS SCHOOL OF BUSINESS — Boulder, CO
Master of Science in Finance — ***May, 2017***

REGIS UNIVERSITY, COLLEGE OF BUSINESS AND ECONOMICS — Denver, CO
Bachelor of Science in Economics — ***May, 2016***

DATACAMP (109,591 XP earned, 21 Courses Completed, 1,560 Exercises Aced)

- **Relevant Courses:** Intro to Machine Learning in R, Machine Learning Toolbox in R, Non-Linear Modeling in R with GAM's, Bayesian Modeling with RJAGS, Supervised Learning with scikit Learn in Python, Introduction to R, Intermediate R, Importing Data in R, Writing Functions in R, Data Manipulation in R with dplyr, Data Visualization with ggplot2 in R, Intro to Python for Data Science, Intermediate Python for Data Science Python for R users, Supply Chain Analytics in Python with PuLP

COURSERA

- **Relevant Courses:** Algorithms Specialization through Stanford University (in progress), Bayesian Statistics from Concept to Data Analysis, Bayesian Statistics Techniques and Models (in progress), Microeconomics: The Power of Markets