

Cristobal Zamorano Astudillo

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EDUCATION

- **University of California, Berkeley** Berkeley, CA
B.S. of Computer and Data Science - Applied Mathematics & Modeling 2018 - 2021
 - **Major Coursework:** Advanced Machine Learning, Data Mining, Probability Theory, Computer Security, Databases Design, Data Structures, Computer Architecture, Principles & Techniques of Data Science, Algorithms

SKILLS

- **Languages:** Python, SQL, R, Java, C, C++, GoLang, Kotlin, HTML, CSS, Javascript
- **Technologies:** AWS, Docker, Heroku, Keras, Tensorflow, PyTorch, Flask, Spark, Git, Maven

HIGHLIGHTED EXPERIENCE & PROJECTS

- **University of California, Berkeley — Latinx Research Center** Berkeley, CA
Data Scientist Research Intern: Jan 2021 - Present
 - Designing a data mapping tool to map demographics of minority communities that were impacted by the 2020 elections with Professor Angela Marino and the rest of researchers team.
 - Implement NLP techniques and methodologies on the bills that lost and won the Elections in Florida.
 - Attending weekly meetings to communicate progress, discuss challenges and troubleshooting of the project in the overall process with Professor and fellow researchers.
- **Future Salary App — <https://future-salary.herokuapp.com/>** Python
 - Designed a salary predictor that only uses job descriptions in order to output salary ranges
 - Implemented a word2vec Neural Network to rank text data scrapped from 20K+ different job descriptions.
 - Implemented my own Neural Network Architecture to benchmark other ML models. My Neural Network had the highest Accuracy metric of all the ML models with 85% on the test data.
- **Toxic Comments Detector App — <https://toxic-text-detector.herokuapp.com>** Python
 - Designed a multi-label classifier that reduces the inadvertent bias of a Machine Learning model to detect toxic comments.
 - Implemented an optimal feature engineering for vectorization of the text data and hypertunning parameter analysis.
 - After the model benchmark results, the final model had an overall of 90% F1 score against all toxic features.
- **Spotify Music Insights Project — <http://www.cristobalza.com/>** Python
 - Implemented the Spotify's API to obtain my music metrics to create an insight on my data.
 - Designed and implemented my own PCA algorithm using Eigenvectors from my own music data.
 - Designed and implemented my own ML recommender model that could compete against my "Discover Weekly" playlist made by Spotify.
- **Santiago's Car Accidents Classifier & Visualizations — <http://www.cristobalza.com/>** Python
 - Analyzed the most common causes of car accidents in the city of Santiago, Chile using police data and geodata.
 - Implemented an ML model that could predict accidents based upon the street and month of a year. Using a hypertunned Random Forest Regression, I was able to predict deathly accidents with an average accuracy of 83%.
 - Designed a policy proposal using my work to the Chilean Transportation Ministry to prevent number of casualties

RELATED EXPERIENCE

- **University of California, Berkeley — EECS Department** Berkeley, CA
 - **Foundations & Techniques of Data Science Lab Assistant:** Jan 2020 - March 2020
 - Co-taught weekly 2-hour lab for for DATA 100 Principles & Techniques of Data Science course in Python
 - Helped students to learn course concepts about Data Lifecycle, Machine Learning Ensemble Modeling, Data Visualization Techniques, prepare for exams, and learn effective study skills.
 - **Data Structures & Algorithms Lab Assistant:** Aug 2019 - March 2020
 - Helped students to prepare for exams, and learn effective study skills, and understand the main concepts behind data structures and programming methodologies.