

# Isaac Plotkin

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## **EDUCATION**

**University of California, Santa Cruz**

June 2022

Bachelor of Science in Computer Science, Minor in Statistics

**Relevant Coursework:** Applied Machine Learning, Introduction to Machine Learning, Linear Algebra, Data Structures and Algorithms, Analysis of Algorithms, Probability and Statistics for Engineers, Vector Calculus, Computational Models

Study Abroad in Sorrento, Italy

Summer 2019

## **TECHNICAL SKILLS**

**Programming languages:** Python, Java, C++

**Additional Computer Skills:** Github, SQL, scikit-learn, TensorFlow/Keras, Excel, Django

## **PROJECTS**

**NBA Playoffs Predictor**

**Objective:** To create a classifier that predicts if an NBA team will make the playoffs given the team's offensive and defensive stats for the season.

- Implemented a neural network with two hidden layers using offensive and defensive data from 2015-2020 NBA seasons.
- Coded in Python, used TensorFlow/Keras, pandas, NumPy, and Matplotlib.

**Credit Card Default Predictor**

**Objective:** To create a classifier that predicts whether someone will default on their credit card.

- Used SVM machine learning model on the UC Irvine default of credit card clients data set to predict.
- Coded in Python, used scikit-learn, pandas, NumPy, and Matplotlib.

**Waste Mindfulness**

**Objective:** To make an app that creates an archive and graph of everything the user throws away. The user can look back at the graph, see their waste distribution and then be more mindful over how much trash they are wasting.

- Created with a team of four other members at CruzHacks 2020 in Python and Kivy.
- Primarily worked on backend development.

## **RELEVANT JOB EXPERIENCE**

**UC Santa Cruz, Santa Cruz CA**

March 2021-present

*Machine Learning Research Intern*

- Research how to enhance the fairness and accountability of machine learning models to better serve our society.
- Investigate adversarial machine learning to understand how to prevent malfunctions in machine learning models.

**UC Santa Cruz Loik Lab, Santa Cruz CA**

January 2021-present

*Restoration Research Intern*

- Collect and analyze data about plants.
- Research how plant functional traits and phylogenetics inform ecological restoration.