# PAIGE CASKEY

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## **EDUCATION**

CHAPMAN UNIVERSITY | Bachelor of Science in Data Science

Minor: Business Administration

Honors: Dean's Scholar, Provost List

## EXPERIENCE

#### AMERICAN EXPRESS | AI Studio Intern

- Enhanced overall product recommendation accuracy by 45% in order to optimize user experience and drive revenue growth
- Engineered a 2-tower model with attention mechanisms trained on over 100,000 instances of historical user activity
- Conducted extensive research on state-of-the-art machine learning methods in order to reduce RMSE by 30%
- Managed end-to-end model development process, including extensive testing to ensure a measurable increase in performance

#### LEARN, ADAPT, BUILD LAB | Research Assistant

- Developed a matching algorithm in Python for multi-round grouping of study participants based on survey responses
- Collaborated on the execution of the study, planning detailed data collection techniques and organizational strategies
- Analyzed success of pairings using clustering algorithms based on demographic data in order to identify patterns

#### GIANT FOOD STORES | Data Integrity

- Optimized ordering systems using database queries and system analysis to find and correct over 200 inaccuracies daily
- Introduced database organizational strategies for item location which lead to 40% overall faster database correction rates
- Conducted weekly audits in order to identify system flaws and implement improvements, effectively managing the database

## PROJECTS

## OPTIMIZATION ALGORITHMS FOR DEEP LEARNING CONVERGENCE | Medium

- Authored various articles on the mathematical foundations of learning rate algorithms with an 81% read rate over 30 seconds
- Provided critical analysis on advantages and limitations of each, leading to improved understanding among readers

## SPOTIFY PLAYLIST GENERATOR | GitHub

- Developed a web application in JavaScript, allowing users to create playlists based on a custom recommendation algorithm
- Utilized authorization code flow for SpotifyAPI access, allowing recommendations to be based off of user listening data

## WiDS DATATHON | GitHub

- Led a team to design and implement a CatBoost model to predict time to treatment for metastatic breast cancer patients
- Earned best performance out of all Chapman University participants through iterative refinement and feature engineering

## LEADERSHIP

#### WOMEN IN SCIENCE AND TECHNOLOGY | Historian

- Networked to bring industry professionals to speak at meetings, delivering industry advice and insights to over 100 members
- Led campus engagement initiatives including tabling and social media management, leading to a 75% increase in membership

## BREAK THROUGH TECH @ UCLA | Machine Learning Fellow

- Engaged in a 12-month long program including hands-on experience and machine learning coursework with Cornell faculty
- Solidified understanding of various techniques including natural language processing, image classification, and deep learning

#### SKILLS

#### Programming Languages: Python, R, SQL, C++, JavaScript

Tools & Frameworks: Pandas, Scikit-learn, PyTorch, TensorFlow, Keras, NLTK, Selenium, React, Flask, AWS

#### CERTIFICATIONS

Aug 2024 - Present

May 2025

Jan 2024 – Dec 2024

Jun 2022 – Sep 2022

May 2024

Jan 2024

Jul 2024

Aug 2024 - Present

Jun 2024 - Present