

# Anna Capels

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## PROJECTS

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### Lyric Analysis | Python (Beautiful Soup, NLTK, NMF, Seaborn, Matplotlib)

- Web scraping for HTML parsing, data extraction, and session management to get song titles and lyrics
- Implemented data manipulation, text processing, topic modeling, and data visualization for a clear efficient analysis and presentation
- Integrated calculating correlation coefficients, performing sentiment analysis, applying Markov modeling for text analysis, and working with HTTP requests and networking for data retrieval

### Stock Prediction and Risk Analysis | Python (Pandas, NumPy, Matplotlib.pyplot, Seaborn)

- Utilized Yfinance to perform stock risk analysis by data processing and visualization with financial techniques for trend assessment, risk evaluation, and informed investment decision-making
- Crafted appealing data visualizations with statistical concepts such as KDE, simple linear correlations, and VaR for easy communication of financial insights
- Developed and implemented multiple Monte Carlo simulations to model predicted stock price movements based on historical data

### Tea Leaf Disease Detection | Python (TensorFlow, Keras)

- Employed image processing and computer vision (PIL), deep learning frameworks designing CNN model architecture using the sequential API, and evaluating models using classification reports and confusion matrices
- Experienced in various aspects of deep learning, including dataset preprocessing, augmentation, handling techniques, training, and evaluating models with different layer types, regularization using dropout layers, and model compilation with the Adam optimizer
- Achieved overall accuracy of 84% while also demonstrating high precision, recall, and F1 scores accurately predicting accurate and reliable labels for a diverse set of samples

### Portfolio Website | HTML, CSS, JavaScript

- Designed and developed a dynamic portfolio website using HTML, CSS, and JavaScript, showcasing personal projects and skills.
- Integrated DNS management techniques and SSL/TLS encryption to ensure seamless and safe website accessibility.
- Utilized modern front-end frameworks and libraries, such as Bootstrap, to enhance the website's aesthetics and functionality.

## EDUCATION

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### Colorado State University

B.S. in Psychology; Minor in Applied Data Science

Cumulative GPA: 3.9

Relevant Course Work: Statistical Data Analysis, Applied Statistical Methods, Culture and Coding using Python, Psychology of the Individual in Context, Cognitive Psychology, Social Problems, Research Design and Analysis I & II, Written Arguments

Fort Collins, CO

Expected Graduation: 2024

## RELEVANT SKILLS

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### Technical:

- Python
- Java/JavaScript
- R Studio
- SQL
- Tableau
- HTML/CSS
- Microsoft Office
- Google Workspace

### Other:

- Collaborative Communicator and Active Listener
- Adaptive Learner and Creative Thinker
- Data Analysis and Visualization
- Manage Multiple Concurrent Tasks and Deadlines
- Conflict Resolution Facilitation and Mediation

### Languages:

- Spanish | Written, Reading, and Verbally Fluent

## HONORS & AWARDS

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- Dean's List 2021-Present
- Seal of Biliteracy

- Advanced Placement Endorsement
- Honor's Academy Endorsement

## **VOLUNTEER**

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### **Food Bank**

**2013-Present**

Worked with a team of volunteers at the Larimer County food bank to organize food drives and local community events to help to raise awareness about food insecurities in Northern Colorado.

### **Chinese and Korean Heritage Camp**

**2022-Present**

Facilitated and assisted in organizing activities for internationally adopted children of all ages while promoting inclusivity and creative problem solving through team collaboration.