CHRISTOPHER APTON

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EDUCATION

University of Southern California, Los Angeles, CA   Expected 05/2025

MS, Applied Data Science, GPA: 3.8

University of California, Los Angeles (UCLA), Los Angeles, CA   06/2023

BS, Data Theory (Mathematics, Statistics, & Computer Science), Bioinformatics Minor, GPA: 3.7

SKILLS AND CERTIFICATIONS

Programming Languages: Python, R, SQL, C++, Java
Libraries: NumPy, Pandas, Seaborn, Scikit-learn, Keras, TensorFlow, Plotly, PyTorch, pytest, Tidyverse
Tools: Git, Tableau, PowerBI, Jupyter Notebook, VS Code, Apache Spark
Methodologies: Data Analysis, Machine Learning, Algorithms, Data Structures, Data Visualizations, A/B testing.
Certifications: Machine Learning Scientist with Python, Data Scientist Professional with Python, etc.

EXPERIENCE

Herman Ostrow School of Dentistry of USC, Los Angeles, California

Data Science Research Assistant   03/2024 – 09/2024

- Acts as data science specialist for AI & Orthodontics research group
- Designed code that manipulates data from patient 3D scans to be compatible with a pre-trained LLM model that segments teeth; Collects and presents data on a biweekly basis at whole-team meetings

USC Sol Price School of Public Policy, Los Angeles, California

Graduate Researcher   01/2024 – 09/2024

- Leverages LLMs to classify AI's effects on various government job roles at the local, state, and federal levels
- Web scrapes and cleans federal job data from PDF files to be fed into the model and analyzed

Voya Financial, New York, New York

Data Science Intern   05/2024 - 08/2024

- Created a Data Quality Checker app using Python, SQL, and Snowflake, which ran on a daily basis to provide developers 24/7 business validations on financial data and identify outliers for review
- Developed 44 data-driven tests, including one leveraging linear regression to establish a 99% prediction interval for identifying outliers. Additional tests were designed to validate the accuracy of Snowflake tables and detect abnormal changes in portfolios
- Conducted in-depth data analysis on portfolio data using Power BI and Python, investigating anomalies
- Completed three different certification courses on data modeling in training for Snowflake data analysis and Datavault 2.0

University of California, Los Angeles (UCLA), Los Angeles, California

Directed Research   01/2022 - 06/2023

- Performed independent research on time series techniques, bootstrapping techniques, and using LSTMs with time series under the guidance of Professor Michael Tsiang
- Met weekly with Professor Tsiang to provide research updates and set goals for independent study
- Presented research and conclusions at undergraduate research event

Public Editor, Berkeley, California

Software Developer   03/2020 - 05/2021

- Managed the Article Funnel system using Python, Java, SQL, JavaScript, and Angular
- Enhanced user experience by transitioning from client-side to server-side pagination, significantly reducing users load as article volume increased

PROJECTS

CalHacks 10.0: KnowBotics, San Francisco, California |

Software Developer   10/2023 - 10/2023

- Developed an homework helper bot powered by a LLM designed to provide personalized help by analyzing lecture slides, PDFs, and HW assignments, providing customized support for students' academic tasks
- Leveraged Python, OpenAI's API, and integrated tools like LlamaIndex and Reflex, enabling dynamic responses and natural language interaction

Heart Disease Prediction, Los Angeles, California |

Team Lead   06/2022 - 08/2022

- Led the development of an XGBoost model with tuned hyperparameters, leveraging Cross-Validation to predict heart disease
- Preprocessed data to improve model performance: Removed outliers and feature engineering. Developed in R
- Optimized the model using Randomized Search for hyperparameter tuning achieving a 90% validation accuracy