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
- Designed and implemented an automated data pipeline to web scrape, extract, and preprocess federal job data from PDFs, improving data processing efficiency and enabling more accurate AI-driven insights.

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 for predicting stock price and other time series tasks
- Met weekly with Professor Tsiang to provide research updates and set goals for independent study
- Presented research and conclusions at UCLA's undergraduate research event

Public Editor, Berkeley, California

Software Developer 03/2020 - 05/2021

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

PROJECTS

SetupForge – Windows Automation Tool, San Jose, California |

Team Lead 01/2025 - 01/2025

- Developed SetupForge in collaboration with the City of San Jose to streamline software installations and configurations, enabling employees to automate tasks such as running executables, creating files/folders, and modifying system settings.
- Designed an intuitive C++ wxWidgets based GUI that allows users to create and execute step-by-step automation scripts, significantly reducing manual setup time and improving operational efficiency.
- Implemented key features including environment variable management, registry edits, drive mapping, and system reboots, with built-in error logging and checkpoint-based resumption for reliable execution.

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