Dylan Sutro

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Outcome Oriented

Seeking opportunities to problem-solve, develop effective solutions to client problems, and expand my programming, hardware, and teamwork skill-sets. Goal of entering the field of unsupervised learning to assist in the discovery of causal features.

Education

University of California Santa Cruz Santa Cruz, CA

Bachelor of Science in Computer Engineering *Expected June 2023*

- Applied Machine Learning - Took courses which focused on designing, building, training, and interpreting various types of machine learning models for different kinds of tasks.
- Computer Systems - Rigorous investigation into the sources of complexity for a system and various approaches to creating robust, modular, and secure applications.
- Embedded Systems - Extensive coursework in the fields of digital logic, low level programming, micro controller architecture, and processors.
- Physics Minor – Additional classes taken on classical, relativistic, and quantum physics.

Experience

Data Analysis Intern June 2022 - September 2022

Joby Aviation *Santa Cruz, CA*

- Processed network and flight data to assess simulator accuracy of aircraft conditions and software environment.
- Worked with different teams to determine expected performance of software and hardware components of the aircraft.

Software Verification Intern October 2020 – September 2021

Joby Aviation *Santa Cruz, CA*

- Worked in a team environment to deliver bug fixes and feature updates to a diagnostic tool for aircraft components.
- Learned Aviation standards and certification guidelines as well as procedures for demonstrating reliability of aircraft hardware and software.
- Designed, built, and managed python package to supply robust diagnostic modules including a standalone command line interface (CLI) program for end-of-line testing of aircraft computers.

Projects

Machine Learning and Music Composition | *Python, TensorFlow, Jupyter* September 2021 – Present

- Researched various applications of artificial intelligence with respect to music composition including parametric models, probabilistic models, and deep learning with a focus on musical re-synthesis.

Frequency Modulation Re-Synthesis Tool | *Python* September 2022 – March 2023

- Lead team as product owner of project for Software Engineering Capstone following Agile project management methodologies.
- Designed and built in-browser python tool for performing FM re-synthesis (process of recreating a target impulse signal using FM synthesis) using a genetic algorithm.

Technical Skills

Languages

- Python: Comfortable using machine learning libraries, graphical utilities, asynchronous programming, and experienced with all design patterns.
- C/C++: Applied experience using C/C++ for embedded systems, server/client negotiations, and algorithm analysis and optimization.
- SQL: Experience using SQL to manipulate large databases and produce graphical dashboards for meaningful visual inspection.
- Databricks, Google Colab, Jupyter: Exposure to various multi-language notebooks managing multiple tasks across different languages in a single environment.