

Keith Kwong

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EDUCATION

University of California San Diego

Data Science - Bachelor of Science

GPA: 3.890 (Provost Honors)

Relevant Coursework: Data Structures, Algorithms, OOP, Machine Learning, Recommender Systems, Deep Learning, Scalable Systems, Data Mining, Decision Trees, Data Modeling, Clustering

March 2024

La Jolla, CA

WORK EXPERIENCE

Systems Engineer - Aristotle Capital Management , California

July 2024 - Current

- Developing internal large language model tool using Meta's Llama-3 LLM as a baseline and RAG (retrieval augmented generation) architecture to improve it for company specific usage.
- Programming across the full stack of the application, using the Django web framework, Celery task manager, Docker containers, AWS Bedrock/S3, and React.

Data Scientist Intern- Great Lakes Consulting Services , Remote

June 2023 - Sept. 2023

- Spearheaded efforts to program probabilistic and regression based models to help health insurance companies in predicting future Star cut points set by the CMS using publicly available data on past measurements given by the CMS.
- Developed Julia scripts to benchmark for one of their existing budgeting applications.

Data Engineer Intern - Cosmos Technology, Remote

June 2022 – August 2022

- Consolidated data about different Metaverse transactions into one database.
- Built a data pipeline that pulled in collection data from the OpenSea API daily using an AWS Lambda function, storing it in an S3 bucket and uploading the data to a MySQL database using AWS Glue.
- Pulled data directly from blockchain using Python's web3 library and Infura as the host node.

Software Engineer Intern - PairAnything, Remote

February 2022 – June 2022

- Frontend work for the web application using React and Angular, revamped the pairing recommendations screen
- Backend work that involves the creation of a new API for a new feature using Sequelize ORM and NodeJS.

PROJECTS

Emulating The Effects of Climate Change with Deep Learning

September 2023 - March 2024

- Developed three deep learning algorithms to be used for climate emulation (XGBoost, Deep Kernel Learning Gaussian Process, Physically Informed Neural Network).
- Website: <https://jacklijk.github.io/DSC180B-website/>
- Github: <https://github.com/jacklijk/ClimateBench-Plus>

Debugging Internal States of IoT devices (Research)

August 2022 - April 2023

- Looked into the potential of classifying fine-grained internal states of IoT devices using information gathered from external sensors.
- Programmed a HackRF, Ethernet sniffer, and oscilloscope to build a data pipeline to gather information such as network traffic, EM field activity, and power consumption of the IoT device.
- Fed information into CNN for an algorithm that could predict the current state.

SKILLS

- **Languages:** SQL, Java, Python, MATLAB, R, Julia, NodeJS, HTML, Javascript, CSS,
- **Technologies:** AWS, Jira, Figma, Git, GNURadio, Jupyter Notebooks, Anaconda, Pandas, SKlearn, Tableau, React, Django, Docker, D3
- **Soft Skills:** Communication, Strategic planning, Leadership, Problem Solving