Keith Kwong

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EDUCATION

University of California San Diego **March 2024**
Data Science - Bachelor of Science La Jolla, CA
GPA: 3.890 (Provost Honors)
Relevant Coursework: Data Structures, Algorithms, OOP, Machine Learning, Recommender Systems, Deep Learning, Scalable Systems

WORK EXPERIENCE

Data Scientist Intern- Great Lakes Consulting Services , Michigan June 2023 – September 2023
- Built a probabilistic model 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, New York 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 Engineering Intern - PairAnything, Davis, CA 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://jackljk.github.io/DSC180B-website/
- Github: https://github.com/jackljk/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.

Smartphone Human Activity Recognition Github June 2021 - August 2021
- Analyzed dataset from UCI that recorded sensory data from accelerometer and gyroscope attached to smartphones and physical movements of human subjects.
- Trained and tested multiple machine learning algorithms to find an optimal model that predicts human movement based on smartphone movement.

SKILLS

- **Languages:** SQL, Java, Python, MATLAB, R, Julia, NodeJS, HTML, Javascript, CSS, D3
- **Technologies:** AWS, Jira, Figma, Git, GNURadio, Jupyter Notebooks, Anaconda, Pandas, sklearn, Tableau