

Work Experience

Software Engineer

2022-Current

[Wiliot](#), San Diego CA

- Implemented object tracking in a customer facility from event streams with **Docker** on **Cloud Run**.
 - Key product moving largest client to a contract.
 - Built out Backend and Frontend to support tracking of assets with **React**, Express, & **Typescript**.
- Built application for physical infrastructure deployment across 500+ stores, Distribution Centers with 2 of the Fortune 5 by building and managing a **Firebase** database, API layer, and React front-end.
 - 2 Person team delivered fully functional app in 3 months.
- Led effort to build a **Data Warehouse** Application that automated provisioning and configuration. Met with customer teams & data engineers to understand problems and improve time-to-first-customer-impact.
 - Improved existing record comparison times from 3s/record to 0.03s/record with batching.
 - Used **Apache Kafka**, **MQTT** and **GCP Cloud Functions** to avoid scaling bottlenecks, working with 100k+ physical assets.
 - Utilized **BigQuery NoSQL** to host the data and provide a platform for analysts.
- Reduced ML simulation time from 16 hours to 1.5 hours, by parallelizing across 200 concurrent cloud instances.
 - Sped up research team of 6 to distribute findings to the field.
- Presented baseline metrics with **Databricks** with **SQL** & **Plotly** to prevent performance regression on a successful project handoff.
- Managed team resources to deploy applications on GCP with **Git** and **CI/CD**.

Software Engineering Intern

2022

[Toyota Racing Development](#), Costa Mesa CA

- Decreased process time by 50% and reduced process time of senior engineers by 75%, resulting in estimated \$20,000 yearly cost savings by building a Python application that tested multiple sensors at once.
 - Built **Python** application to work with testing equipment to reduce re-runs from 10% to 2%, doubled speed with multithreading sensor measurements, and decreased measurement error from 5% to 1% with input validation.
 - Automated documentation of 3500 lines of code with pydoc.

Data Engineering Intern

2021

[Hersh Lab](#), Orange CA

- Created an **ETL** data pipeline for **Geospatial Raster Data**, then uploaded data with **R**, **Python** and **S3**.
- Collaborated with the World Bank on humanitarian data contracts focused on Economic Development.
- Predicted locations for national ID enrollment centers in Togo based on population distribution, internet connectivity, and available infrastructure with an AutoEncoder model, aiming to increase participation in the identification program.

Education

Double Bachelors in Data Science and Economics

Chapman University

- The top student in Data Science Class. 3.9 Magna Cum Laude.

Certificate of Completion, Probability And Random Variables

Massachusetts Institute of Technology

Skills

Languages: Typescript, JavaScript, Python, R, C++, Java, Bash

Frameworks: React, Express, Redux, Material UI, Geospatial

Databases: SQL, NoSQL, Firebase

Cloud: GCP, AWS, ETL, Distributed Systems, MQTT, Apache Kafka, Load Balancing

DevOps: Git, Pipelines, CI/CD, SSO, Linux/Unix