650-291-4624
hirotaso92602@gmail.com

So Hirota

GitHub: soh09
LinkedIn: So Hirota
Website (soh09.github.io)

Education

University of California, San Diego — **September 2021 - June 2025 (expected)**
B.S. in Data Science, Minor in Cognitive Science — *La Jolla, CA*
GPA: 3.94

Work Experience

Data Science Intern — **June 2024 - September 2024**
Franklin Templeton, Strategic Ventures — *San Mateo, CA*

- Developed a financial data pipeline from the ground up using DataBricks, Snowflake, and PowerBI, resulting in an 80% reduction in manual data processing time and enabling informed decision-making by stakeholders
- Leveraged SQL, Python, and Llama models with tailored prompts to parse emails, slide decks, spreadsheets, and text files
- Held frequent meetings with the users to understand their needs and prioritized ease of use for non-technical users
- Created extensive documentation of the system for future users and engineers

Machine Learning Engineer — **October 2023 - Present**
Argon Robotics — *La Jolla, CA*

- Rapidly prototyped and delivered a CNN for weld seam detection within 2 weeks to be used in a production environment
- Advised the founder on neural network architectures like autoencoders and U-Net and identified the optimal solution, based on requirements like core objectives, performance, and data availability

Data Science Intern — **July 2023 - September 2023**
menu, Inc — *Tokyo, JP*

- Menu is a major food delivery technology company, mainly competing with "Uber Eats" in Japan
- Conducted KPI analysis and communicated actionable insights to decision-makers and a multi-disciplinary team
- Constructed a regression model to predict daily online time per delivery crew by factoring in weather conditions, seasonality, and historical data
- Led the development of a time and order flow simulation to simulate order statuses, delivery driver locations, and order queue, which facilitated the testing of novel order-driver matching algorithms

Projects

Dinosaur Nugget Anomaly Detector (1st Place at DataHacks) — **April 2024**

- Prototyped and trained a convolutional autoencoder in PyTorch to detect anomalous shapes in dinosaur-shaped nuggets
- Collaborated with team members to collect data, load/transform data, and pitch our project to a panel of judges
- Winning project of the UCSD-hosted annual "DataHacks" hackathon

2048AI - Evolving Neural Networks — **December 2023 - Current**

- Implemented neural networks and the Neur-Evolution of Augmenting Topologies (NEAT) algorithm from scratch
- Designing fitness functions that balance human intuition and objective metrics to facilitate effective evolution
- Profiled the NN and NEAT implementation to identify inefficiencies in code, resulting in a 20% speedup in performance

Shazam 2.0 — **January 2023 - May 2023**

- Created a music genre classifier that classifies the genre of 10 second song snippets
- Employed PyTorch for training and hyperparameter optimization of CNN models, resulting in 99% prediction accuracy
- Developed Python scripts to ingest the dataset from an AWS server to a local server and process it into multiple CSV files to streamline the training of machine learning models
- Utilized Fourier transforms and dimensionality reduction techniques like PCA to process raw audio data

American Sign Language Detection Glove (1st Place at HardHack) — **April 2023**

- Developed a glove that could measure the position of each finger to detect the ASL alphabet in real-time
- Trained a K-Nearest Neighbor algorithm that could detect signs with 85% accuracy using Scikit-Learn

Skills

Data Science	Pandas, SKLearn, PyTorch, OpenCV, Snowflake, Databricks, Spark
Programming	Python, Github, SQL, Java, Javascript, C++, Object-Oriented Programming
Soft Skills	Cross-functional Communication, Detail Oriented, Organization, Collaboration