

Yan Annie Jiao

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EDUCATION

Massachusetts Institute of Technology
bachelor of computer science; 4.7/5.0

cambridge, MA
2012-2016

SKILLS

Languages: Python, JavaScript/TypeScript, SQL, Bash, Java, Haskell
Frameworks: React, Flask, Airflow, Spark, ElasticSearch
Tools: Git, Presto, PySpark, Kubernetes, Docker
Platforms: Linux, AWS S3

EXPERIENCE

Tesla

senior software engineer
software engineer

palo alto, CA
april 2020 - current
may 2017 - april 2020

data pipelines & algorithms:

Created data pipelines to incrementally process terabytes of data with sub-15 minute latency. With a configuration file, firmware developers across multiple teams are able to ask questions using combinations of conditions that trigger data collection, results from which give insight into firmware readiness using real-world data. Algorithms are designed to process hundreds of these questions at once in linear time and give results quickly.

Technologies used: PySpark, Pandas, Hadoop, Parquet, Airflow, ElasticSearch

UI & data visualization:

Visualize data in a web application and allow for fast in-memory slicing of the underlying dataset, distilling tens of millions of data points to percentiles and outliers, and visualize events from multiple sources cohesively. By working directly with firmware developers and managers across teams, the tools built allow them to gauge the level of confidence in a software update and continue to monitor changes in the real world.

Technologies used: React, TypeScript, GraphQL, Apollo, Flask, uWSGI, Kubernetes, Plotly, Dash

signal packing & network generation:

Part of a small team to create a tool that generates messaging networks for CAN that allows for efficient signal organization, based on latency and cycle requirements. These networks were then used to abstract hardware requirements to help streamline manufacturing station order.

Technologies used: Haskell, Javascript, Python

Salesforce

software engineer

san francisco, CA
june 2016 - may 2017

API, UI & UX:

Worked on web UI allowing user to drag & drop and other in-browser interactivity to create workflows and pipelines. Also contributed to the Java backend.

PERSONAL PROJECTS

HappyCamper - campsite reservation assistant:

This tool allows my friends and I to define where we'd like to stay for a date range and queries national and state parks for campground availability. Written in Python, hosted on Heroku.

ByHive controller - supplement greywater system for irrigation:

Initiates supplemental watering depending on weather conditions, previous watering cycles, and max days without watering per zone. Written in Python, hosted on Heroku.

Woodworking, digital art, photography:

Aspiring amateur carpenter making home improvements and building furniture. Keeps collecting new tools.

VOLUNTEERING

Habitat for Humanity

3 houses, 1 garage, and counting!

2010 - present