

HAOTIAN ZHOU

Software Engineer @ Amazon | MSAIL Alumni @ CMU

@ haotian2@alumni.cmu.edu 412-708-3839 Seattle, USA https://www.linkedin.com/in/haotian-zhou/

EXPERIENCE & PROJECTS

Amazon

Jul 2020 - Present

SDE Fulltime

Seattle

Seller Level CIV¹ for Amazon.in

Provide CIV estimates for more than 120,000 sellers in India

- Build and automate backend data pipeline which includes . automated the pipeline based on AWS Step Function in Python
- Work together with economists to develop machine learning model for Seller Level CIV.
- Design redshift table; implement ETL jobs in hql and scala to load data via EMR
- Refactor RESTful Service API to support seller-level granularity. use cache to increase ...

CIV Data Pipeline Infrastructure Optimization

Greatly improved the performance, reliability and scalability of internal systems

- Migrate DynamoDB related operations from single host to EMR cluster. Distribute DDB operations to all executors by using Spark, 7 times faster.
- Implement AWS Lambda Function support in current infrastructure, migrate backend system from hosts to serverless application.

Contribution Profit Boost Process Automation

Automate the CP Boost process cross three teams (CIV, Finance, data provider)

- Coordinate & implement this automated pipeline across multiple teams(...)
- use S3, StepFunction, Pandas, save 70% of manual works during this process
- Reduced manual operation by 80%. Shortened the entire process from one month to 5 days

Amazon

May 2019 - Aug 2019

SDE Intern

Seattle

CIV Backend 2.0 Prototype

Designed and implemented extendable Data pipeline backend built fully on Native AWS

- Built data pipeline backend with centralized workflow control based on AWS Step Function
- Developed new features by integrating multiple AWS Services : Lambda Function, CloudWatch, SNS, EMR

Carnegie Mellon University

Jan 2020 - May 2020

Capstone Project

Pittsburgh

Chatbot to Chatbot QA system

Automated chatbot that can make outbound call to IVR² system, answer IVR questions & transfer call back to human

- Integrated with Twilio APIs to make outbound / inbound call and get audio streams
- Integrate with Google Cloud Speech-to-Text API to transcribe audit stream in real-time
- Applied NLP technologies to detect questions, search & build answers according to information stored in database
- Sponsor Scholarship Winner

¹CIV : Consumer Instock Value, an economic concept that evaluates long-term impact of a retail offer instock status change
²IVR: Interactive Voice Response System

CAREER OBJECTIVE

AREA OF INTEREST

Software Development

NLP

Cloud C

Data Engineering

Machine Learning

Deep Learning

TECHNICAL SKILLS

Python

Java

C

Scala

JavaScript

Apache Ant

SQL & HQL

AWS

Git

Spark & Hadoop

DeepLearning

NLP

Distributed System

PERSONAL SKILLS

Quick Learner

Teamworking

Work w

EDUCATION

M.S. Artificial Intelligence

Carnegie Mellon University

2018-2020

GPA: 3.95

B.E. Computer Science

Harbin Institute of Technology

2014-2018

GPA: 3.75