SINAN KARABOCUOGLU

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EDUCATION	**UNIVERSITY OF MICHIGAN** — Ann Arbor, MI

UNIVERSITY OF MICHIGAN · Ann Arbor, MI
College of Engineering Class of 2022
M.S.E in Electrical Engineering – "Signal Processing and ML" Track (GPA: 3.94/4.00)
B.S in Computer Science – "Data" & "Systems" Tracks (GPA: 3.77/4.00)
- Languages: (skillul) Python/TypeScript/Java (familiar) C++/JavaScript/R/HTML/CSS
- Tools: (skillful) AWS CDK/Lambda/SageMaker/ECR/S3 (familiar) Docker/SQL/Pandas
- Honors/Awards: Amazon Fashion Hackathon People's Choice Award (LLM Chatbot) | IEEE-Eta Kappa Nu Honor Society(top 25% of class) | University Honors | hackNY Fellow

EXPERIENCE
Since Dec 2022

Amazon · New York, NY
Full Stack Software Engineer (Internal Cloud "School of Resilience" Certified)
- Implemented multiple A/B feature testing set ups and respective AWS Cloudwatch monitors/alarms suited for traffic loads north of 2600 transactions per second, resulted in improved fashion influencer content and CX that lead to $38.5M+ annualized revenue
- Root cause and fixed the health problems (expired certificates, environment overrides, misconfigured load balancer ports, etc.) of the testing network of the Fashion Detail Page, increasing marketplace coverage by 75% and speeding up weekly oncall CD/CI process
- Used SageMaker Notebook instances as large as "ml.m5.12xlarge" and internal Spark tools regularly to verify/debug/improve query logics on datasets of sizes up-to 16TB+

Oct – Dec 2022

Hyfi · Ann Arbor, MI
Technical Consultant(worked with Prof. Branko Kerkez)
- Consulted on Infrastructure as Code practices via AWS Cloudformation templates, introducing easy organization of cloud resources and scalability to new AWS regions
- Automated collection, processing and storage of hourly rain data from NOAA's public dataset to S3 and InfluxDB via scheduled Lambda function, ending manual executions and setting up automatic notification and backfilling logic in case of upstream failures
- Deployed geospatial analysis packages like GDAL and Terracotta to cloud via Docker Images managed and versioned by Amazon ECR, increasing the memory of Lambda functions by 4 times and creating critical space for future large size geospatial packages

Summer 2020-21

Amazon · New York, NY (Virtual from MI)
Software Engineering Intern
- Worked with scientists on required data for an ML model to personalize fashion search and used AWS CDK to deploy a proof-of-concept S3 data lake for centralized storage
- Set connections to three internal datasets (~200 TB, ~15 TB, and ~2 TB each) via AWS Glue ETL jobs and Apache Spark to filter and pull daily data to be stored at data lake, showcasing a single flexible data retrieval tool for scientists instead of many limited ones
- Designed a data pipeline that periodically executes 20+ parallel Lambda functions, scaling to 12 locales and 3 metrics while improving processing time of raw data by 90%

PROJECTS
Feb – Apr 2021

System Design of a Search Engine · Ann Arbor, MI
- Built(as part of a group of 6) index(~1TB) storage and multi-threaded network channel between ranker and results page of a search engine that was distributed across 10 cloud machines to serve multiple users in parallel with ~1.5 minute average response time

Jun - Aug 2019

Cardstack · New York, NY
- Developed a movie-list web app using an SDK wrapped around Ember.js and JSON:API, as quick-start tutorial of the Cardstack open-source project's reactive programing aspect

ADDITIONAL
- Avid urban planning enthusiast, Brym's community garden and food projects volunteer
- Enjoys salsa and volleyball; practiced kickboxing for 3 years; JV basketball team captain
- Came in 10th out of 100+ players in Flow Traders 2019 Summer Poker Tournament