

David Chen

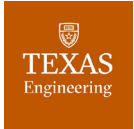
SOFTWARE ENGINEER | BACKEND

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Education



Austin, TX

The University of Texas at Austin

Fall 2016 - May 2020

- Expected B.S.E. in Electrical and Computer Engineering (Software Engineering). Expected May 2020.
- Coursework: Introduction to Machine Learning; Application of Machine Learning; Concurrent/Distributed Processes; Algorithms; Data Structures; Digital Signal Processing; Probability. Linear Algebra.

Employment



Software Engineering Intern

Airbnb

May 2019 - August 2019

Homes: Platform: Core Services (Homes Infrastructure)

- Improved data consistency checks (ElasticSearch to MySQL table) by implementing an offline comparison service (dump ElasticSearch data into Hive, compare to offline source table, reindex mismatches)
- Reduced load for target database from 1.5B to 60K queries daily (700 QPS over 12 hours); new solution now takes on average three hours which is four times faster than previous solution (full reindex)
- Extended service to create a configuration-based framework in Python for other teams that use the same pattern of propagating MySQL updates through a Kafka topic to their own ElasticSearch clusters
- Explored ElasticSearch backup and re-index strategies for Airbnb-wide best practice adoption
- Investigated reducing P95 propagation lag by using Apache Flink over services consuming Kafka



ML Software Engineering Intern

Facebook

January 2019 - May 2019

Instagram Ads Ranking

- Created Dataswarm pipelines that dump data into HDFS/Hive using Presto for ads model training
- Designed ranking models that optimize for specific events; ran several rounds of A/B tests to see behavior in production; worked with data scientists to discuss tradeoffs/lift of metrics and iterate
- Delivered ads model to production that met product requirements with acceptable metric tradeoffs
- Conducted cost benefit analysis on ad type (effect on auction, ranking, etc.) to deliver to stakeholders
- Delivered a new scoring formula for a specific ad type which resulted in more accurate predictions



Software Engineering Intern

Salesforce

May 2018 - August 2018

Automation Portal Dashboard – CI Data

- Analyzed commit, pull request, and test metrics to quantify and understand developer productivity
- Implemented real time analytics using Java Spring backend with Guice injections and Hibernate SQL



Software Engineering Intern

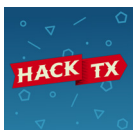
IBM

May 2017 - December 2017

Bulk Token Mover – Business Process Manager

- Developed Java app that uses product REST API to systematically solve product upgrade failures
- Reduced resolution time from days to hours; simplified workflow so end users can solve on their own

Projects and Extracurricular Activities



Technical Director

Freetail Hackers

January 2018 - Present

HackTX - Leadership

- Manage and mentor team of ten software engineers who develop software solutions for HackTX
- Quill Registration System - Angular.js, Node.js, MongoDB
- Led development and adoption process of Quill, an open source hackathon registration system
- Delivered application that was used by around 100 users for registration in WholesomeHacks event

Skills and Technology

Languages: Java, Python, SQL, C++

Frameworks: Guice, Lombok, Spring, Flask, Airflow