

Alex Chen

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Education

University of California, Los Angeles

BACHELOR OF SCIENCE, COMPUTER SCIENCE

Expected December 2022

GPA: 3.97 - Dean's Honor List

Coursework: Data Structures, Algorithms, Database Systems, Operating Systems, Computer Organization

Societies: Upsilon Pi Epsilon Computer Science Honor Society

Experience

Amazon

Boston, MA

SOFTWARE DEVELOPMENT ENGINEER INTERN - AWS ELASTIC BLOCK STORE

Jun. 2021 - Present

- Designed new system for supporting multi-versioning of CloudFormation templates, aiding in automating EBS bootstrapping
- Created database to manage multiple levels of template and account relations formed by integrating a central storage of templates
- Established consistency and availability by using triggers to immediately detect template updates and propagate them to affected accounts

UCLA ELFIN CubeSat

Los Angeles, CA

SOFTWARE DEVELOPER

Oct. 2020 - Present

- Developed framework for compiling geomagnetic activity data, eliminating need to manually analyze hundreds of records per week
- Integrated support for inner belt science types into the Downlink Completeness Tool (DCT), allowing operators to collect more detailed sets of data
- Refactored DCT to perform more structured queries and minimize state, increasing maintainability for the future

Skoruz Technologies

Fullerton, CA

DATA ENGINEER INTERN

Jun. 2019 - Sep. 2020

- Constructed Change Data Capture (CDC) pipeline that performs ETL jobs into Hive for company's Business Analytics Platform
- Chained processors together to form templates that process client databases and extract all changes made
- Automated solution by developing a program to dynamically modify templates and deploy templates as data feeds
- Ingested records as Delta tables, providing teams with thorough data versioning and powerful metadata processing through Spark

Projects

he-reddit-ary

- Used Spark to compute the most influential words used in Reddit comments for any subreddit during a time period
- Aggregated different sets of attributes to determine various statistics, used to calculate an overall TF-IDF score for each token

Deliveryation

- Extracted customer orders made through different food delivery companies, used to form a centralized and live interface of orders
- Developed REST API endpoints to parse emails and receipts and dynamically extract relevant order information
- Optimized resources by integrating Google Pub/Sub to publish order notifications to a topic, which is relayed to the endpoints

invoiceMiner

- Tripled the rate of invoice processing by developing a program to extract tax information from uploaded invoices of varying format
- Performed pre-processing on invoices to add readable text layers, tune image pixels, and locate tables prior to extracting data

Skills

Languages Python, SQL, C/C++, Java, JavaScript, TypeScript, HTML/CSS

Frameworks + Tools Git, MySQL, PostgreSQL, Apache Software Projects, Spark, Bash, Docker, Flask

Technologies Databases, Linux, ETL, MapReduce, Optical Character Recognition