

# Zachary Huang

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## EDUCATION

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**University of California, Berkeley**

Bachelor of Arts in Computer Science

Berkeley, CA

Aug 2018 – Dec 2021

## EXPERIENCE

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**Software Engineer**

August 2022 – Present

**Airtable**

San Francisco, CA

- Currently developing a general streaming framework in an effort to move 70% of our ETL pipelines from batch to realtime using Apache Flink and Kubernetes
- Building a MySQL Change Data Capture system using Flink and Databricks Spark clusters to serve realtime MySQL data with a 15 minute maximum latency
- Spearheaded data landing project to migrate **all** existing ETL pipelines to land in Delta Lake, in an effort to retire AWS EMR and Redshift
- Migrated entire existing MySQL batch processing infrastructure, managing 100+ tables of about 10+ TB of data, from EC2 to Kubernetes (EKS)
- Implemented an incremental version of our reverse ETL pipeline from Redshift to DynamoDB in order to reduce daily data size by 90+%

**Software Engineering Intern**

Jan 2022 – May 2022

**Cambly**

San Francisco, CA

- Adapted Cambly's classroom framework to be capable of hosting multiple participants for Cambly's new Group Lesson offering
- Synchronized user perspectives, engineered classroom management features, and created front-end tests for multi-student and teacher lessons

**Software Engineering Intern**

May 2021 – Aug 2021

**Amazon, AWS**

Seattle, WA

- Designed an automatic SIM / JIRA crash ticket reporting system that automatically identifies and resolves similar crash tickets, reducing the number of manually resolved tickets by over 50%
- Gathered hundreds of crash ticket entries and analyzed stack traces in order to produce a similarity score based on keywords to compare tickets
- Constructed a Grafana dashboard integrated with a PostgreSQL database in order to mediate weekly DocumentDB meetings

**Software Engineering Intern**

May 2020 – Aug 2020

**Amazon, AWS**

Remote

- Built a compressible wrapper for DocumentDB queries that integrates with MongoDB's wire protocol, lowering message sizes by 50% (C++)
- Reduced network bandwidth usage of DocumentDB queries by 45% on average and decreased latency by 20% on average when performing large queries by preventing network bandwidth bottlenecks

## PROJECTS

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**Pandemic Web** | [github.com/zchhuang/pandemic](https://github.com/zchhuang/pandemic) | *React, MongoDB, Meteor*

April 2020 – Aug 2020

- Architected a full stack online multiplayer board game, reminiscent of Pandemic, in Javascript using React, MeteorJS, and MongoDB with a team of four
- Implemented half of the player and game command API, integrating Meteor with MongoDB in order to sync the players with the game state in the database
- Designed a new UI for the game in Figma, CSS, and React

## TECHNICAL SKILLS

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**Languages:** Typescript, Java, Python, C/C++, C#, SQL, HTML/CSS, Golang, Terraform

**Frameworks:** React, Node.js, Kubernetes, Apache (Spark, Flink), MeteorJS

**Tools:** AWS (EMR, EKS, RDS, EC2, etc.), Datadog, Databricks, Opensearch, MongoDB, Figma, Docker, Grafana