

# KEVIN CHUANG

SOFTWARE ENGINEER · DATA ENGINEER

🏠 San Jose, CA  
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## WORK EXPERIENCE

### HomeLight

SENIOR DATA ENGINEER  
DATA ENGINEER

San Francisco, CA

07/2022 - 04/2023

11/2020 - 07/2022

- Designed, built, and launched core algorithm to match and rank real estate agents with home buyer and seller opportunities, **boosting conversion rate by 15%** using **Python, SQL, Django, Elasticsearch, Airflow, AWS (Kinesis, S3, Redshift)** and **Heroku**
- Developed internal TV ad planning and bid optimization system to support marketing team, **resulting in reduction of \$250,000 annually in external ad agency costs** using **Python, Django, Airflow, SQL, AWS (ECS, S3, RedShift)**, and **Heroku**
- Spearheaded design and deployment of mission-critical data pipelines to showcase property listing images and transaction history, **enhancing user experience on company's primary website** using **Python, Airflow, SQL, Elasticsearch, Kafka** and **AWS (Lambda, SQS, S3, Redshift, Kinesis, DynamoDB)**
- Implemented record linkage solution to support operations team in tracking real estate agents and transactions, **leading to discovery of missed revenue opportunities totaling over \$500,000** utilizing **Python, SQL, Airflow, Redshift**, and **ElasticSearch**

### ViacomCBS

MACHINE LEARNING ENGINEER  
DATA SCIENCE INTERN

San Francisco, CA

02/2020 - 11/2020

06/2019 - 12/2019

- Designed, built, and launched machine learning application to automatically generate and expose engaging video previews to support internal brands (**CBS News, CBS All Access**) and remove dependency on external services, **resulting in significant cost savings** using **Python, Django, Kubernetes / Helm**, and **GCP (GKE, Pub/Sub, GCS, Cloud SQL)**
- Built serverless collaborative filtering recommendation system to power personalized movie / show recommendations for **CBS All Access** using **Python, Spark, Redis, Kubernetes**, and **GCP (BigQuery, Dataproc, GKE)**
- Developed and launched backend API for creating personalized movie / show recommendation carousels for millions of new & trial users on **CBS All Access**, **enhancing user experience** using **Python, Django, Redis, Kubernetes**, and **GCP (GKE, Cloud SQL)**
- Researched various text summarization methods (TextRank, Pointer Generator) to create cloud-native text summarizer application consisting of Chrome extension (**JavaScript**) with **Python Flask** backend server deployed on **Google App Engine** using **Docker**

### Knowles Intelligent Audio

DATA ENGINEER  
TEST ENGINEERING INTERN

Mountain View, CA

02/2017 - 05/2019

10/2016 - 02/2017

- Designed & implemented **Python** data pipelines for verification, processing, and transfer of large amounts of critical audio data into **MongoDB** database to enable cross-functional engineering teams

## SKILLS

### Programming

Python, Bash, Golang, JavaScript, MATLAB

### Database

PostgreSQL, RedShift, DynamoDB, BigQuery, MySQL, SQLite, MongoDB, Redis

### Tools

Airflow, Django, ELK (Elasticsearch, Logstash, Kibana), Pandas, Spark, Git, Docker, Kubernetes, Helm, Pytest, NumPy, SciPy, Matplotlib, Scikit-learn, Keras, TensorFlow, Heroku, dbt, Kafka, Flask, CI/CD, ETL / ELT, Hadoop, Excel

### Cloud

Amazon Web Services (RedShift, DynamoDB, Lambda, ECS, EKS, SQS, S3, Kinesis, Athena, CloudWatch, SageMaker), Google Cloud Platform (Pub/Sub, GCS, Cloud SQL, Dataproc, BigQuery, Stackdriver, GKE, GCR, GCE, GAE, AutoML)

## EDUCATION

### San Jose State University

MASTER OF SCIENCE IN SOFTWARE ENGINEERING

San Jose, CA

08/2017 - 12/2019

### University of California - San Diego

BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING

La Jolla, CA

09/2012 - 06/2016

## PROJECTS

### Yet Another URL Shortener

Takeaways: Microservices, AKF Scale Cube, System Design

- Collaborated with team in hackathon to design, implement, and launch URL shortener web service that satisfies **AKF Scale Cube** with **React.js** frontend, **Kong** API Gateway, multiple load balancers, **Golang** API microservices, and sharded **MongoDB** clusters hosted on **AWS**

### Data Science Competitions

Takeaways: Data Analysis, Feature Engineering, ML Model Lifecycle

- Ranked **1st** in book recommender system, **2nd** in traffic image classification, **3rd** in news article text clustering, and **5th** in medical text classification in the final leaderboard of data science competitions using **Python (pandas, scikit-learn, matplotlib, scipy)**