Kevin Chuang

Software Engineer · Data Engineer

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Work Experience

HomeLight
San Francisco, CA

Senior Data Engineer — *07/2022 - 04/2023*

Data Engineer — *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
San Francisco, CA

Machine Learning Engineer — *02/2020 - 11/2020*

Data Science Intern — *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**, **Argo** 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
Mountain View, CA

Data Engineer — *02/2017 - 05/2019*

Test Engineering Intern — *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, SQL, Bash, Golang, JavaScript, Java, MATLAB
Database	PostgresSQL, 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, REST API
Cloud	Amazon Web Services (RedShift, DynamoDB, Lambda, ECS, EKS, SQS, S3, Kinesis, Athena, CloudWatch, SageMaker, EMR), Google Cloud Platform (Pub/Sub, GCS, Cloud SQL, Dataproc, BigQuery, Stackdriver, GKE, GCR, GCE, GAE, AutoML)

Education

San Jose State University
San Jose, CA

Master of Science in Software Engineering — *08/2017 - 12/2019*

University of California, San Diego
La Jolla, CA

Bachelor of Science in Electrical Engineering — *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)**