

Xingfan Xia

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EDUCATION

Carleton College, Northfield, Minnesota

- B.A. in Computer Science Mar 2017
 - Related Course Works: Human-centered Computing, Operating Systems, Database Systems, Computer Graphics, Software Design, Programming Languages, Computability and Complexity, Coding Theory, Computer Sound and Music

WORK EXPERIENCE

Airbnb, San Francisco, CA

- Software Engineer Jan 2019 – Present
 - Developed a machine learning model on millions rows of data to tackle down the fake review problem at Airbnb with Sklearn and Pandas, cutting the volume of fake reviews to 1% of the peak volume and prevented 2 million loss in coupon and credits.
 - Trained a machine learning model on millions rows of data to produce generic risk score with Sklearn and Pandas, evaluating the overall risk of users on Airbnb especially on Airbnb hosts, similar to Alipay's Zhima/Seesame score.
 - Collaborated with team to launch the delayed payout policy which delays the payout of risky Airbnb hosts, prevented 60% of fraudulent payouts being made and hence in an estimated 10 mmillion in annual savings.
 - Built a java service which provides downstream service with risk signals easily from a single source of truth without having to dive into hundreds of services and APIs using Redis, Hive, and Apache Kafka.
 - Designed and Implemented a scoring java service which produces risk score of certain events and senario supporting 6 downstream consumers using Redis, Hive, and Apache Kafka.

Lino Network, Cupertino, CA

- Software Engineer Mar 2018 – Oct 2018
(Platform & Infrastructure)
 - Performed a major upgrade of Dlive, largest live streaming DApp on Blockchain; implemented a discord-like feature with VueJS, GraphQL, and Web Socket. Dramatically increased user retention rate.
 - Architected and developed a video platform that includes ingest, transcoding, and distribution of video files in Golang with AWS S3, SQS, and Cloudfront from scratch. Serving terabytes of video content in different qualities globally.
 - Built GPU-accelerated transcoding cluster for the video platform in Golang with FFMPEG and Nvidia CUDA. Increased transcoding efficiency by 15 times and expanded the supported video formats and codecs.
 - Improved users' experience uploading video by deploying video ingest service in 7 major regions of the world to reduce uploading wait time and the possibility of transfer errors with AWS API Gateway and AWS Lambda.
 - Secured content on the Dlive platform by implementing signed-cookie protection on AWS Clooudfront in Python to defend third-party malicious attack.
 - Designed and implemented data pipeline at Lino from scratch to monitor user behaviors, user QoE metrics, and streaming service robustness with AWS Kinesis, AWS Lambda, ELK Stack, and Splunk. Performed real-time analytics of gigabytes of logs from users and aggregated into comprehensive reports and dashboards that provides both technical and business insides.
 - Researched popular live streaming protocols including HLS, MPEG-DASH, Web-RTC and prototyped their implementations.

Vevo LLC, San Francisco, CA

- Software Engineer Intern Jun 2017 – Sep 2017
(Data & Machine Learning Team)
 - Designed and implemented a Q&A chatbot using AWS Lambda, Python and AWS Lex. Deployed the chatbot on Facebook Messenger and Slack.
 - Built a multi-seed recommendation engine. Deployed as an API service, a Web App, and a tvOS App as POC demos.
 - Analyzed visuals of music videos, generated playlists based on similar visual elements grouped by LDA topic modeling.
 - Deployed a Jupyterhub system on an AWS P2 instance to facilitate team's research and exploratory works related to machine learning and deep learning. Typically made model training 6 times faster.

TECHNICAL SKILLS

- Programming Languages: Proficiency in Golang, Python, Java, Javascript, Scala, C
- Frameworks: VueJS, Bulma, LAMP, GraphQL, Selenium, Webpack, NodeJS, PhantomJS, React, Django, ELK, Splunk, Apache Spark, Apache Kafka
- Tools & Tools: Ubuntu, Docker, FFMPEG, Nvidia CUDA, MongoDB, MySQL, Redis, Hive, HDFS, Presto

- Proficient AWS Services: S3, SQS, EC2, Lambda, API Gateway, Auto Scaling Group, Cloudfront, Route 53, CodePipeline, CodeBuild, CodeDeploy, Elastic Beanstalk
- Machine Learning & Deep Learning: Scikit Learn, OpenGL, Theano, Matplotlib, Scipy, Numpy, Pandas, Keras, Jupyter