Hongyuan Gao

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Skills

Programming: Java, Python, JavaScript, C, C++, SQL, HTML, CSS **Tools and frameworks**: Git, Jira, Jenkins, Node.js, Amazon Web Services

Experience

Software Engineer, Google – Mountain View, CA

- Built the storage management module in Google Play Store (official app store on Android) to increase ARR by \$8.5M, install success rate by 2.4% and reduce median UI latency of the "Free up space" assistant by 92%
- Improved app install size calculation of Play Store to reduce install error rates by 19% and daily network data consumption for app download by 3.1% (1.6 PB)
- Re-designed Play Store notification infrastructure and built a notification syncing mechanism between Android and Play to increase notification click rate by 6.7% and notification opt-in rate by 1.8%
- Refactored the app installation logging flow to eliminate duplicated logs, increasing logging accuracy by 6.7%
- Built dashboards to visualize app installation logs, which serve as a go-to place for 300+ Play Store engineers and product managers to view app installation stats from 3 billion users
- Improved team's feature launch velocity by 2 weeks by proposing and driving the launch process optimization
- Authored multiple articles on metric analysis, which serve as guidelines for launching Play Store features
- Designed and implemented new Play Store pages for users to manage installed apps, which receive 303M daily visits; also built end-to-end logging and dashboards to monitor page visits and latency
- Created a logging pipeline to collect Play Store network usage stats by proposing a date partition approach to get accurate stats, being monitored by 200+ engineers as a key blocking metric for Play Store release control
- Implemented an urgent law-enforced module for controlling system update by deadline, with a bonus feature that supports parental control by quickly learning Android UI techniques and parental control API integration

Software Engineer Intern, Electronic Arts – Seattle, WA

May 2017 – August 2017

July 2018 - Present

- Created a web application with React and Three.js to enable 100+ game developers to inspect gameplay events such as player movement and action on 3D game terrain maps
- Scaled the web app throughput to 60K events per second by creating a Node.js service to transfer events from the internal database to Amazon S3 and materialize the data in Amazon Redshift
- Designed and built APIs for querying gameplay events to provide data to the web app and enable developers to query raw gameplay data for tailored use scenarios
- Reduced game map size and loading speed by 80% by compressing game terrain map models

Projects

College Admission Data Point Crawler

• Created a web application to crawl and parse college admission data points from 1point3acres.com, visualized 30K application results and received 900+ monthly visits from 17 countries

Movie Recommender with Machine Learning

• Implemented a movie recommender system with 0.93 RMSE (5-star rating scale) by applying singular value decomposition (SVD) algorithm tuned with user preference and movie genre

Education