Brian Su

briansu.eng@gmail.com / (925) 319-7408

EXPERIENCE

Roblox, Personalization - Senior Machine Learning Engineer, *July 2021 -*
- Led cold-start ranking model efforts that improved D0 user playtime by 7+% and 2%+ lift on M1.5 user retention. Responsibilities include feature engineering, improving the DNN model, setting up A/B experiments, and data analysis. Identified as a crucial project by the CEO for improving the business.
- Implemented rule-based ranking and a linear optimization-based ranking to support fixed and dynamic ranking of homepage vertical contents and allow the homepage to display multiple content types. Responsibilities included cross-team collaborations to enable and retrieve required signals for ranking.

Wish, Recommendations and Ranking - Software Engineering Manager, *Aug 2017 - July 2021*
- Tech Lead for recommendations and exploration, in charge of both technical and business aspects. End-to-end responsibilities on data collection/analysis, model development, infrastructure development/maintenance
- Manager of a team of 2 engineers and 7 interns, focused on building relevancy for various business initiatives, e.g. branded products, video recommenders, etc.
- Implemented and deployed various recommender systems models, including matrix factorization, graph-based models, session-based RNNs, multi-armed bandit models that have driven 5%+ GMV and engagement metrics
- Developed and deployed related product XGBoost ranking model that increased GMV by 1% and engagement metrics by 2%+
- Implemented and deployed end-to-end computer vision models for extracting image embeddings for recommendations, predicting image aesthetics, label tagging, and product image search using Tensorflow Serving
- Led exploration, responsible for serving new products and products belonging to key business objectives, e.g. branded products, special merchant products, local products
- Led cross-team collaborations with the product team for key company projects - Wish Blue/Local, discover tab, community video feed, feed tile explanations
- Promoted to senior eng (L5) 2 years after joining as (L3) and manager 1 year later

Google, Speech - Software Engineer Intern, *May 2016 - Aug 2016*
- Implemented multi-task label training and soft label CLDNN (Conv+LSTM+DNN) models using DistBelief with promising results for improving voice endpointing

Apple, Maps Analytics - Software Engineer Intern, *May 2015 - Aug 2015*
- Developed a method to efficiently compare alternate routes and real navigation re-routes using probe data and Hadoop Map Reduce

RESEARCH

Biomimetics Millisystems Lab, UC Berkeley - *advised by Prof. Ron Fearing*
Sept 2015 - May 2017
- Modeled lift/drag forces exerted on a 6-legged millirobot in a grass-like environment

Koc, C., Koc, C., **Su, B.**, Casarez, C., & Fearing, R.S. (2019). Body Lift and Drag for a Legged Millirobot in Compliant Beam Environment. *2019 International Conference on Robotics and Automation (ICRA), 3108-3114.* [link]

Biometeorology Lab, UC Berkeley - *advised by Prof. Dennis Baldocchi*
Feb 2016 - May 2017
- Developed ML models to approx. process-based models for eddy covariance flux data

EDUCATION

UC Berkeley - B.A. Computer Science, *2013 - 2017*
Awards/Honors: Cal Leadership Award, Upsilon Pi Epsilon (Cal CS Honor Society)

SKILLS

Interests: Recommender Systems, Ranking, Machine Learning, Computer Vision
Frameworks/Technologies: Tensorflow, PyTorch, Spark, Hadoop, Android, AWS (EC2 / Lambda / S3), Docker, Memcache, Redis, Puppeteer, Python, Golang, Java, C++, SQL, JS