

Li-An Yang

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li-an.me

Skills

Area of Interest	Personalization, Real-time Ranking System, Data Engineering, Information Retrieval
Skills	JVM-based Data Processing Framework, Kubernetes, Hive, Tensorflow, Redis, Vespa
Miscellaneous	Model Serving Automation, Recommender System, Distributed Streaming Pipeline

Work Experience

Software Engineer, Yahoo	Mar. 2020-present
<ul style="list-style-type: none">• Leopardon - A Model Serving Automation Pipeline for Real-time Content Recommendation System<ul style="list-style-type: none">– Improved model velocity to 100% automation by helping Data Scientists launch online experiments in one go– Enabled continuous deployment of machine-learned models into our serving architecture for online A/B testing– Eliminated hour-long system redeployment and error-prone human intervention process• Fine-grained Feature Design and Feeding for Real-time Precision Ranking in Vespa<ul style="list-style-type: none">– Introduced collaborative filtering features to append precision ranking on top of recalls in a unified ranking system– Alleviate user cold start problem with more convoluted user/document features	
Software Engineer Intern, Yahoo	Jun. 2019-Sep. 2019
<ul style="list-style-type: none">• Feature Design and Implementation for Yahoo Content Recommendation System<ul style="list-style-type: none">– Designed an article-level score to exploit redirected page views as trending signals outside of Yahoo network– Delivered the complete cycle of a project from data logging, feature computation, to re-training model– Maintained 94% or above code coverage with JUnit in every codebase	
Research Assistant, Institute of Information Science, Academia Sinica	Mar. 2017-May 2018
<ul style="list-style-type: none">• User Intention Understanding on Taiwan Open Platform for Educational Resources<ul style="list-style-type: none">– Revealed search keyword trends on the website with millions of entries of user log data– Developed a keyword generation pipeline for personalized resource recommendation in primary education	
R&D Intern, Email Reputation Services Division, Trend Micro Inc.	Jun. 2015-Aug. 2015
<ul style="list-style-type: none">– Simulated patterns of malicious mail attacks with log-based data hashing and clustering	

Selected Term Projects (li-an.me#works)

Amazon Purchase Prediction Challenge on Kaggle

- Ranked 7th among 800 people with an accuracy of 72.96%
- Formulated the problem as a ranking objective function to maximize pairwise preference prediction probability
- Adopted collaborative filtering techniques by exploiting category and popularity similarities between items

A Preliminary Study of Automatic Playlist Continuation and Add-to-playlist Prediction on Spotify

- Designed two variations of feature vector with track-level and playlist-level clustering respectively
- Recommended on average 9% of total tracks to match 86% of the ground truth dataset
- Suggested playlists for users to add a liked track to with logistic regression models and XGBoost

Automatically Proving Mathematical Theorems with Evolutionary Algorithms and Proof Assistants

- Research results published at the IEEE Congress on Evolutionary Computation
- The first to generate formal proofs automatically by exploiting proof assistant Coq with evolutionary algorithms
- Proved ten theorems in different branches of mathematics automatically: Arithmetic, Logic, & Parity

A Voice-controlled Streaming Jukebox based on IBM Bluemix Cloud Service

- Established music streaming services on Raspberry Pi featuring personal music recommendation
- Deployed IBM Watson APIs to carry out on-demand speech-to-text features and social networking services

Right Whale Recognition Competition on Kaggle

- Adopted SIFT and bag-of-words model to extract distinctive feature of the whale face in a team of three
- Improved the evaluated score in log-loss by thirty percent in limited time

Education

University of California, San Diego	M.S. in Computer Science	Sep. 2018-Mar. 2019
National Chiao Tung University	B.S. in Computer Science	Sep. 2012-Jun. 2016
Université de Technologie de Compiègne	Exchange Student	Feb. 2016-Jun. 2016