Yivuan Luo

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#### **EDUCATION**

### • Beijing Jiaotong University

Beijing, China

B.Eng., Computer Science and Technology

September 2017 - June 2021

- **GPA**: 3.42/4.00 (Overall) 3.66/4.00 (Major)
- Relevant Coursework: Operating Systems (97%), Computer Architecture (92%), Data Structures (92%), Discrete Mathematics (91%), Database Systems (90%), Object-Oriented Programming in C++ (A), Algorithm Design and Analysis (A)

#### Research & Work Experience

### • Research on Recommendation Method based on Factorization Machine

Beijing, China

Outstanding Undergraduate Thesis, Advisor: Prof. Ding Ding

November 2020 - May 2021

- o Optimized and implemented the DeepFM model with PyTorch to predict QoS values (response time, throughput, etc.) of distributed cloud services in data-sparse scenarios.
- o Improved accuracy by 12% in MAE / 7% in RMSE over other prediction methods on a large-scale real-world dataset WS-DREAM.
- Studied the effects of hyperparameters (i.e., feature combination, embedding size, neural network shape) on the model performance.

#### • ByteDance Ltd.

Beijing, China

Software Engineer Intern - TikTok

June 2020 - October 2020

- Developed a variety of feature styles with Objective-C and Swift, performed AB test to choose the best style.
- Implemented a resource preloading API, which reduced the size of installation package by 15%; Developed an image cache with NSCache, which reduces images loaded asynchronously and brings a smoother user experience.
- Solved historical problems of user behavior collection (missed reports, inconsistent data format, etc.)
- Fixed UI adaptation issues on different iOS versions and devices.

# • Beijing Jiaotong University ACM-ICPC team

Beijing, China

Student Coach

June 2018 - June 2021

- Lectured topics in competitive programming including graph theory, data structures and computational geometry.
- o Organized six campus programming contests between 2018 and 2021 and served as problem proposer.

#### Projects

- IntelligentAnnotationSystem: A set of intelligent system for electronic medical record characteristics extraction. Including Android app, front-end and back-end. Deployed in more than 10 hospitals and research institutes.
- 12309: An implementation of railroad information management system. Developed with Node.js, Express, Vue.js, Bootstrap and MySQL. Using separated front-end and back-end structure.
- qhelper: A one-click programming contest test data generator with GUI. Developed with Qt and C++.
- iFree Studio Fly: An Android mini-game like Flappy Bird, developed with Java.

## Selected Awards

• 1st Place (out of 1147), Programming Ability Test (Advanced Level)	$Dec\ 2020$
• Silver Award, 2020 Group Programming Ladder Tournament (Top Level)	Dec~2020
• Third Prize, 2020 National Computer System Competency Competition (Compiler Design)	$Aug\ 2020$
• Silver Award, The 2019 ICPC Asia Shanghai Regional Contest	Nov~2019
• Silver Award, The 2019 ICPC Asia Nanjing Regional Contest	Oct 2019
• Silver Award, The 2019 ICPC Xi'an China National Invitational Programming Contest	$May\ 2019$
• First Prize, 2019 Lan Qiao Cup Programming Contest (C/C++ University Group A)	$Mar\ 2019$
• Bronze Award, 2018 China Collegiate Programming Contest (CCPC) Qinhuangdao Site	Sep~2018

#### Programming Skills

- Languages: Not limited to any specific language, and experienced in C/C++/Python/JavaScript/Objective-C.
- Technologies: iOS SDK, Android SDK, Qt, Flask, Node.is, Vue.is, Bootstrap, PvTorch, NumPv, Neptune.ai, Git