Ruozhou Zhang

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EDUCATION

University of Southern California   **Los Angeles, California**
Master of Science, Computer Science (Game Development)   *Graduation Date May 2023*
The Chinese University of Hong Kong, Shenzhen   **Shenzhen, Guangdong**
Bachelor of Engineering, Computer Science and Engineering (with Honors, First Class)   *Sep 2016 - May 2020*
GPA: 3.58/4.0, Major GPA: 3.73/4.0, Top 15% | Dean's List 2018, 2019, 2020
University of California, Berkeley   **Berkeley, California**
Exchange Student | Computer Graphics, AI, and Machine Learning with TensorFlow   *Jan 2019 - May 2019*

SKILLS

Programming Languages: Objective-C, C++, Python, Swift, Dart/Flutter, JavaScript, HTML, CSS, Java, SQL, SQLite
Software: Microsoft Office, Visual Studio, XCode, Qt, Maya, 3ds Max, Adobe Photoshop, Adobe Premiere, AWS
Hobbies: Coding, Video Games, Boxing, Soccer, Basketball, Go Game, Medieval and East Asia History

WORK EXPERIENCE

Alibaba Group | Taobao (China) Software Co., Ltd.   **Hangzhou, China**
Software Engineer Fulltime   *Sep 2020 – Jul 2021*
- Maintained Taobao App (iOS) image SDK (similar to SDWebImage), solved 30+ issues and 5+ bugs.
- Upgraded the network request pipeline of image SDK and gateway SDK from NSURLConnection to NSURLSession, improved error rate (10% to 5%) and speed (700ms to 600ms) for "short-connect" requests.
- Developed comment component for "Guangguang (a new Media Platform in a unique tab page of Taobao App)" based on DinamicX (a cross-platform development framework) with Objective-C, finished in 1 month.
- Refactored technical framework and UI of commodity evaluation component (billion+ daily page views) of Taobao based on DinamicX with Objective-C and Swift, increased daily page view and interaction numbers.
- Formulated Objective-C and Swift code comment convention for Taobao App team (accepted by 40 + developers), built TBJazzy (migrated from Jazzy and customized for Taobao) for automatically generating code comment documentation.
- Created visualization tool for Taobao App full-trace monitor data based on React with JS and TS (4000+ lines of code).

Software Engineer Intern   *Jun 2020 – Sep 2020*
- Added 17 new event tracking attributes for Taobao App (iOS) network SDK based on NSURLSession with Objective-C.
- Built "Daily/ Hourly Network Success Rate Monitoring Forms" for Taobao App on multiple dimensions (city, date, API…) with SQL and built network anomalies analyzing method based on Recursive Feature Elimination and Linear Regression.
- Designed a "Self-consistent Network Quality Scoring Model" for Taobao App based on Apdex (Application Performance Index) and Topsis (Technique for Order Preference by Similarity to an Ideal Solution), proved by 20+ customer feedback.

ByteDance Ltd. | Product RD and Infrastructure Department   **Shenzhen, China**
Software Engineer Intern   *Dec 2019 – Feb 2020*
- Developed 10+ Flutter SDK APIs, including audio, animation player (Lottie), and route-app with Dart and Objective-C.
- Implemented GIF performance optimization for Flutter engine based on iOS native support.

Tencent Holdings Limited | WeChat Business Department   **Guangzhou, China**
Software Engineer Intern   *Jun 2019 – Aug 2019*
- Built a performance benchmarking tool for WCDB (a mobile database system for WeChat) with a 1.3K+ data source.
- Constructed a machine learning model to optimize the database migration timing strategy for WCDB, covering online learning, nonlinear classification, and CNN; the strategy provides 10% migration performance increase.
- Developed on-device training method on iOS using TensorFlow C++ API with Objective-C and C++.

ENTREPRENEURIAL EXPERIENCE

MOST: An Online Information Sharing Platform   **Shenzhen, China**
Founder & Team Leader   *Nov 2016 – Feb 2019*
- Led a team of 10 to develop an application named "MOST" for sharing information and tips regarding campus, career, and second-hand goods within the student community, garnered 1K+ active users. | http://cide.cuhk.edu.cn/en/node/358
- Received $15K+ funding from the Galaxy Holding Group (only 10 programs get funding per year).
Technical Leader   *Nov 2016 – Feb 2019*
- Designed UI in Sketch and implemented a demo App on iOS with Swift in person within a month.
- Built the App based on Flutter with Dart and Objective-C (focus on iOS), contributed 10,000+ lines.
- Leveraged the LeanCloud framework to build the cloud database and developed back-end logic with 30+ APIs.

RESEARCH EXPERIENCE

SZ Institute of AI and Robotics for Society | IoT and Smart Cloud Research Laboratory   **Shenzhen, China**
Research Assistant | Advisor: Prof. Kai Hwang   *Sept 2019 – May 2020*
Dynamical Virtual Machine Allocation Strategy for Cloud Gaming based on Machine Learning
- Designed server resource allocation strategy for maintaining comparable gaming experiences based on machine learning.
- Constructed a dataset with 50+ data that listed the QoS performance of different kinds of games running on the cloud engine under a heterogeneous amount of CPU, GPU, and network resources based on AWS and GamingAnyWhere.
- Built a cloud gaming QoS data collecting software based on AWS, wxPython and GamingAnyWhere.