

He Qin

SOFTWARE DEVELOPMENT ENGINEER

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Education

University of California, San Diego

M.S. IN COMPUTER SCIENCE AND ENGINEERING

Computer Science GPA: 3.88/4.0

La Jolla, U.S.

Sep. 2017 - Dec. 2018

Shanghai Jiao Tong University

B.S. IN PHYSICS, B.E. IN COMPUTER SCIENCE

Computer Science GPA: 3.63/4.3 | Physics GPA: 3.84/4.3

Shanghai, China

Sep. 2012 - Jun. 2017

Skills

Language / Framework Python, JAVA, Spring Boot, Django, JavaScript, Node.js, Android, gRPC, Angular.js, MySQL, MongoDB

Tools IntelliJ, PyCharm, AndroidStudio, Atom, Postman, MongoDB Compass, Maven, pip, npm

Publication

Learning Python, 5Ed (Chinese Version)

China Machine Press

FIRST TRANSLATOR

2019

- Translated 32 out of 41 chapters. Revised the whole book for 3 rounds.

Certification

2021 **Associate Android Developer**, Google

2018 **Professional Java SE 8 Programmer**, Oracle

2018 **Associate Java SE 8 Programmer**, Oracle

Professional Experience

Adobe

San Jose, U.S.

SOFTWARE DEVELOPMENT ENGINEER, JAVA, C++, JNI, ANDROID UI, ANDROID NDK, ANDROID CAMERA2, NEON, METAL, OPENGGL

Feb. 2019 - Present

Photoshop Camera - Launched on 2020 Adobe Max, mainly working on Android app.

UI/App Logic

- Edit in PsC. Enable user to import image from other app to edit in PsC. Implemented and refactored code on app navigation, activity launch mode. Handled various app state in background mode.
- branch.io deeplink integration. Integrated branch.io SDK. Improved the code under extreme conditions like weak network, lens non-existence, iOS/Android lensID disparity.
- Viewfinder dynamic layout. Mathematically calculated the geometry of the UI layout for various screen size and created transition animation.
- Count down timer for capture picture/video. Added animation and defined UI behavior. Shutter sound for picture/video. Volume key shutter control.
- Lens discover page asset local caching. C++ implementation for both iOS/Android app. Considered cache validation and update.
- Lens bookmark. Integrated backend server bookmark capability. Design UI logic for both online, offline case. (Currently internal PoC)

Rendering Pipeline

- Panorama image as layer. Added 360 panorama image as new type of media layer, which works with existing mask capability like sky/salient mask. Add device orientation support with camera awareness. (Currently internal PoC)

Camera/Video

- Video recording. Coordinate resources like QE, designer, PM, iOS engineer to finalize feature expectations. Implemented the video frame processing feature to enable user record video with lens. (Currently under internal beta test.)
- Camera2 API for exposure/focus/white balance control. Work with APIs like Camera Session, Capture Request, Camera Device Capability.

ML Inference Pipeline Acceleration

- Working on ARM Neon SIMD long register instruction set.
- Performance tuning the DL implementation. Speed up code with techniques like computation caching, spatial locality, matrix transpose.

Adobe

San Jose, U.S.

SOFTWARE DEVELOPMENT INTERN, SPRING BOOT, JAVA, MICROSERVICE, MONGODB, POSTMAN

Jun. 2018 - Nov. 2018

- Working on Adobe Campaign Spring Boot microservice. Wrote a scheduler to coordinate Spring instances on Ethos(Adobe microservice host platform).
- Completed the test coverage with 8000+ lines of test codes. Introduce Project-Lombok to reduce redundancy in DTO code.
- Implementing a Python microservice to serve Spark query jobs.

SAP

SOFTWARE DEVELOPMENT INTERN, DJANGO(PYTHON), IONIC, MATERIAL DESIGN, WECHAT BE, HTML5, CSS

Shanghai, China

Jun. 2016 - Nov. 2016

- Participated and organized the AI Assistant Over ERP innovation project. Helped designing the architecture of the system. Built the chart-rendering component and helped integrating the NLP engine with SAP Anywhere ERP system.
- Organized the “Come and Code” Programming Share Talk. Presented Motion Graphics and Processing Programming.
- Prototyped two POCs of Team-building System and BuyItTogether app using Django Restful, Angular.js, and Material Design.

GLow Inc.

ANDROID DEVELOPMENT INTERN, ANDROID(JAVA), ANDROIDSTUDIO

Shanghai, China

Jan. 2016 - Mar. 2016

- Implemented customized promotion card UI widgets for Baby app under supervision. Added loggings function for the app.

Ericsson

SOFTWARE DEVELOPMENT INTERN, DJANGO(PYTHON), NODEJS, MYSQL, HTML5, CSS

Shanghai, China

Mar. 2015 - Dec. 2015

- Completed PoC for Network Slicing based on Node.js WebSocket communication.
- Implemented WPST Log Visualization System using Django with MySQL DB, which supported editing and inquiring.

Project Experience

McGill Univ. Physics Online Quiz Website

Shanghai, China

DJANGO(PYTHON), APACHE, POSTGRESQL, MATERIALIZECSS

Mar. 2017 - Jun. 2017

- Designed, implemented and deployed a complete online quiz website for McGill University Physics Department, powering a 500-student class.
- Deployed the whole website on VPS with Apache and PostgreSQL as the http-server and database. This was a personal project as well as the undergraduate thesis for my CS degree.