

Xin Su

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I have finished my master in Microelectronics and Solid-State Electronics in University of Chinese Academy of Sciences(UCAS), Shanghai China and my bachelor in Electronic Science and Technology(Microelectronic Technology) in University Of Electronic Science And Technology Of China(UESTC), Chengdu China. After graduation, I worked as a software engineer in Shanghai Huawei Technologies Co., Ltd. I joined the Central Software Institute of Huawei 2012 Laboratories to develop MindSpore AI computing framework from May 2022. During my postgraduate study, I worked as research intern advised by [Prof. Xing Wei](#), [Prof. Zhongying Xue](#), [Prof. Lu Fei](#) for the key processes development of FD-SOI (Fully Depleted Silicon on Insulator) in Shanghai Simgui Technology Co., Ltd., and accumulated three years practical work experience in semiconductor manufacturing industry.

GitHub : <https://github.com/NeverSu> Gitee: <https://gitee.com/archer2049> Gitee: <https://gitee.com/KylinSu>

EDUCATIONAL BACKGROUND

- **Master's Degree Program** September 2015 – May 2019
Shanghai Institute of Microsystem and Information Technology, University of Chinese Academy of Sciences(UCAS)
Major: Microelectronics and Solid-State Electronics
Completed the master academic courses in the Department of Electronics Science and Technology, University of Science and Technology of China(USTC) (Hefei China, September 2015 – June 2016)
GPA: 85, ranking 10%
- **Bachelor's Degree Program** September 2011 – June 2015
School of Microelectronics and Solid State Electronics, University Of Electronic Science And Technology Of China(UESTC)
Major: Electronic Science and Technology(Microelectronic Technology)
GPA: 3.26/4.0

SKILLS

- Strong knowledge of large scale distributed website development process. Be proficient in software development skills based on Spring ecosystem such as SpringCloud, RocketMQ, RabbitMQ, Dubbo, Nginx, Redis, MySQL, ElasticSearch, Kibana, Docker, Jenkins.
- Have practical software development experience on public cloud environment.
- Highly proficient in object oriented programming concepts, data structures and algorithms. Hold the Huawei software engineering competency certification – Huawei General Software Development(HGSD) Professional, Java Track.
- Experience with Pytorch, machine learning, deep learning and image processing. Completed the [DeepLearning.AI Deep Learning Specialization](#) on Coursera.
- Good Programming skills in Java and Python. Basic programming skills in C++ (In learning).

- Profound knowledge of microelectronics manufacturing processes including ion implantation, dry&wet etching, annealing, doping, photolithography, oxidation, polishing, grinding, cleaning, etc.
- Proficient understanding of various characterization methods in the microelectronic industry such as SEM, TEM, AFM, SIMS, Raman spectra.
- Practical foundry production line experience.

WORK EXPERIENCES

- **Shanghai Huawei Technologies Co., Ltd.** July 2019 – Now
 Role: Software Engineer
 1. Central Software Institute of Huawei 2012 Laboratories(June 2022 – Now)
 Participate in the development of MindSpore AI computing framework.
 2. Intelligent Automotive Solution BU(Aug. 2021 – May 2022)
 Due to the structural adjustment of the company, our whole department was cut from CBG to IAS BU.
 3. Consumer Business Group(September 2019 – July 2021)
 Mainly engaged in large scale distributed website development and hardware test automation.
- **Shanghai Simgui Technologies Co., Ltd.** February 2017 – June 2019
 Role: Research Intern

PROJECT EXPERIENCES

1. **MindSpore Framework development** May 2022 – Now
 In charge of MindSpore.Boost Module.
Technology Stack
 C++, AI
2. **Intelligent Vehicle Development Simulation laboratory Web Platform** March 2022 – May 2022
Role
 Platform Owner & Backend Software Development Engineer
Introduction
 This system is used for real-time monitoring, analysis and processing of automobile data in the integration verification link in the R&D stage and the off-line testing link in the delivery stage. An automatic system and a standard terminal execution resource pool are constructed to realize remote scheduling and task delivery of terminal execution machines.
Key Achievements
 - As the platform leader, I completed the first stage construction of this platform and realized the key functions described above.*Technology Stack*
 Java, Springboot, Nginx, Redis, MySQL, RocketMQ, Euraka, ElasticSearch, Kibana, Jenkins, Linux

3. BetaClub

December 2020 – February 2022

Role

BetaClub Cloud Platform Owner & Backend Software Development Engineer

Introduction

Huawei BetaClub is a system including the device side (SDK, APK) and cloud platform which is used to carry out beta experience activities of 1+8+N products(phone, earphone, watch, laptop computer, etc) and automobiles for global Beta users. The main website can support millions of users. BetaClub is deployed in many places around the world, such as the European Union and China (Huawei Intranet and Huawei public cloud), with a total of 180+ ECS servers.

Key Achievements

- Maintain the stability of the whole BetaClub platform. Deal with daily affairs (certificate replacement, version release, BUG solving, ECS overall system switch and capacity reduction, etc.).
- In order to open BetaClub's IT capabilities to commercial partners, I as the platform leader led the outsourcing staff to complete the migration of the cloud platform from Huawei Intranet to the public cloud(betaclub.nzxcloud.cn).
(1) Redesign the user permission matrix of the platform. (2) Complete the modification of platform adaptation to public cloud (remove the dependence of Intranet environment and modify the architecture according to Huawei public cloud environment). (3) Lead to complete the website security rectification and user data privacy compliance review.
- Complete BetaClub redeployment in the EU region. Rectifying and deploying the platform according to local laws, remotely supporting and guiding local foreign colleagues in deployment, operation and maintenance.

Technology Stack

Java, Spring, Springboot, Nginx, Redis, MySQL, RocketMQ, RabbitMQ, Euraka, Dubbo, Zookeeper, ElasticSearch, Kibana, Jenkins, Linux

4. Video Stabilization Evaluation of Flagship Phone

January 2020 – December 2020

Role

Feature Owner & Software Developer

Main Work

- Participate in the formulation of Huawei video stabilization standards.
- Participate in the construction of Huawei video automation test lab.

Key Achievements

- Construct user video shooting behavioral model data set (hand-holding, walking, jogging, fast running and cycling) based on smart phone sensors, such as gyroscopes and accelerometers.(Android)
- Write the control code of guide rail and mechanical arm, and build the ability to realize automatic video shooting in the video evaluation laboratory.(Python)
- Fed the behavioral model data to the H-860 6-axis motion hexapod, and then realize large numbers of phone video shooting with the help of DXO Analyzer. Based on this system, we can efficiently obtain a large number of products's video shooting data and combined with our video evaluation software, the video performance of these products can be analyzed efficiently and precisely.
- Video evaluation software development: (1) Develop and integrate three evaluation algorithms (python and opencv) such as jitter offset(X and Y directions), video sharpness and point light source tremor(Python, OpenCV). (2) Construct video maintenance and debugging system: 1. Add maintenance and debugging dot function in the mobile phone os layer, so that at the end of each video frame there is information about the algorithm enabled for this frame. 2. We have developed a

desktop software based on QT, which is used to analyze the maintenance and debugging data of videos and photos, and return the data results to the software front-end for data analysis and display (C++, QT).

5. Mobile Automated Test Platform

July 2019 – December 2019

Role

Feature Owner & Software Developer

Key Achievements

Based on the device side APK, website cloud platform, and peripheral auxiliary hardware equipments, we have realized automatic testing and data monitoring of mobile phones in the research and development testing stage.

Technology Stack

Java, Android, Springboot

AWARDS & SCHOLARSHIP

- Bacon Prize – Knowledge is Power, Corporate Quality Dept, corporate level, Huawei
January 2021
- Future Star, departmental level, Huawei
2020 & 2019
- Consumer BG Hardware Engineering and Product Dept President's Commendation, *twice*, Huawei
2020

PUBLICATIONS

- **Su X**, Gao N, Chen M, Xu HT, Wei X, Di ZF. Silicon-on-insulator with highly uniform top Si fabricated by H/He co-implantation[J]. Chinese Physics letters, 2019, 36(6):068501.
- **Su X**, Gao N, Chen M, Xu HT, Wei X, Di ZF. Investigation on Evolution of Oxygen Precipitates in Bonded SOI Substrates[J]. ECS Journal of Solid State Science and Technology, 2019, 8(3):186-189.
- Wei Xing, **Su Xin**, Xu Hongtao, Chen Meng, Gao Nan. Bonding method of semiconductor substrate and bonded semiconductor substrate[P]. China: CN201811124962, 2020-10-23.
- ~~Gao N, **Su X**, Chen M, Xu HT, Wei X. Fabrication of Silicon on insulator with Highly Uniform Top Silicon by Hydrogen Chloride Etching[C]. ISTDM/ICSI-2019, USA, 2019.~~
- Chang YW, Wei X, Zhu L, **Su X**, Gao N, Dong YM. Investigation of Radiation Hardened SOI Wafer Fabricated by Ion-Cut Technique[J]. Nuclear Instruments & Methods in Physics Research, 2018, 426:1-4.
- Zhu L, Chang YW, Gao N, **Su X**, Dong YM, Fei L, Wei X, Wang X. Resistivity and Radio-frequency Properties of Two-Generation Trap-Rich Silicon-on-Insulator Substrates[J]. Chinese Physics Letters, 2018, 35(4):047302-.
- Zhu L, Chang YW, Gao N, **Su X**, Dong YM, Fei L, Wei X, Wang X. Effects of Low Boron Concentration on Electrical Properties of Commercial Trap-Rich High Resistivity SOI substrate[J]. ECS Journal of Solid State Science and Technology, 2018, 7(2):35-37.

RESEARCH PROGRAM EXPERIENCE

National Major Science and Technology Projects "Extremely Large Scale Integrated Circuit Manufacturing Equipment and Complete sets of technology", "Layer transfer Ultra-thin SOI Material

Technology Development".