Jingliang Jiang

Love nature, snow and freedom. Never give up and never stop to seek new chanlege. Hope to experience all different kinds of life.

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About Me

Full Name Jingliang Jiang

Experience 9 years total, 6 years in multi-national companys, including AMD and Cisco

Degree Master's and Bechelor's Degree for EE, full-time for Bechelor and part-time for

Master

Available September

Key Words UNITY, FLASK, H264, HEVC, VP9, FFMPEG, ASIC, RTL, FPGA,

Technology Stack

Game En-

Unity, C#

gine ASIC Ver-

Video Codec(H264, H265, VP9, AV1, MJPEG), misc interface(RS232, SPI, FLASH,

ification

OSD)

Video Codec

Have a full understanding about the video codecs, both in asic design and software

stack development

Language

C/C++, Python, C#, Bash, Java, Javascript

Working Experience

2017/12-Now

Advanced Micro Devices, Inc Senior Firmware Engineer

AMD today develops high-performance computing and visualization products to solve some of the world's toughest and most interesting challenges.

- Setting up all necessary hardware platform to support team work.
- Handle the video codec IP verification.
- Bringup the video codec IP of the ASIC.
- Setup auto regression for all test suite.
- Develop essential tools for team.
- Developing the video codec (H264,HEVC,VP9) IP verification framework during both for the pre-silicon and post-silicon period.

2014/5-2017/11 Shanghai InfoTM Microelectronics Co., Ltd. Senior Software Engineer; IT team leader

InfoTM Co., Ltd. is an intelligent system operator with integrated circuit design and development as the core and provides intelligent terminal by integration and optimization of supply chain and offers system service supported by big data operating.

- Catch the bringup plan from ASIC design team.
- Handle the video codec IP verification.
- Handle the misc IP verification.

- Develop all kinds of build system and release tools for team.
- Implement new software video stack for video application
- Support customer for new software stack

2011/10-2014/04Cisco Systems, Inc. Software Engineer

Cisco is the worldwide leader in IT, networking, and cybersecurity solutions.

- Develop Virtualization thin client
- Implement Networking Protocal
- Develop virtualization software client in thin client.
- Maintain building system and CI system.
- Add misc device support for thin client, such as printer, IR remote controler, touching screen, XBox kinect and so on.
- Add vehicle can bus device support for thin client.

Education

2012/9–2015/6 Master's Degree in Electronic Information Engineering, Chinese Academy of Sciences University (part-time)

2007/9-2011/6 Bachelor's Degree in Electronic Information Engineering, Qingdao University

-----Projects

2018/4-Now

Unity DrumSet Teaching system – Personal Project Team leader and Architect

A DrumSet teaching system, including the following parts:

- Server backend (music, student, teacher, school management, based on flask, mysql, vue)
- Game client(Teacher client, student client, normal user client, support Win, Android, IOS, based on unity, jave, winform),
- MIDI device support (DrumSet, Guitar, planing to support electronic organ and other devices)
- Real time and homework correcting
- AI homework recommendation (based on TensorFlow)
- Online purchase for music VIP

Responsibilities:

- Design the product protetype design with Axure.
- Design Server RestAPI.
- Implement core server function and lead my team to finish others.
- Design the Game Client architecture and implement the core game.
- Support device binding for different platform.
- Support multi-MIDI device support for different platform.

2019/6-Now

Mi100/200 AI GPU verification - AMD Senior Firmware Engineer

AMD GPU AI solution for facebook and other customers

Responsibilities:

- Help Board Enginer team to debug hardware issues ,incude pci-e, memory, power
- Add necessarg cases to verify all features for video codec IP in asic.
- Dig with design and other teams to solve related video issues
- Setup all kinds of server and PC platforms to verify the GPU card

2017/12-2019/8 Oberon/Ariel AGPU verification - AMD Senior Firmware Engineer

AMD AGPU game station solution for Sony PS5 and later game station

Responsibilities:

- Help Board Enginer team to debug hardware issues ,incude pci-e, memory, power
- Add necessarg cases to verify all features for video codec IP in asic.
- Dig with design and other teams to solve related video issues
- Setup all kinds of server and PC platforms to verify the GPU card

2018/9-2019/9 Arden AGPU verification - AMD Senior Firmware Engineer

AMD AGPU game station solution for MicroSoft XBOX and later game station

Responsibilities:

- Help Board Enginer team to debug hardware issues ,incude pci-e, memory, power
- Add necessarg cases to verify all features for video codec IP in asic.
- Dig with design and other teams to solve related video issues
- Setup all kinds of server and PC platforms to verify the GPU card

2018/9-2019/9 OpenStack Deploy - INFOTM Senior Software Engineer

Use OpenStack to re-orgnize the structure of the company.

Responsibilities:

- Design server and networking structure and define the budget.
- Use openldp as a global use authority method
- Merge all development tools to openstack

2014/6-2017/9 Asic Chip verification - INFOTM Senior Software Engineer

Infotm provided various chips for IPC, Game Station, SportDV, Android Pad, such as Imapx $200/800(\mathrm{pad})$, Apollo $1/2/\mathrm{x}(\mathrm{IPC},\mathrm{SportDV},\mathrm{NVR})$, Corona $2/3(\mathrm{Game\ Station\ for\ Tencent})$, I handled the vodeo codec IP verification, including in pre-silicon, post-silicon, driver implement, video framework implement.

Responsibilities:

- Keep video codec IPs(From Synopsys, include H1,H2,G1,G2) match the criterion of the design plan
- Help design team to estimate and measure the efficiency and power consumption
- Implement the BMS code based uboot to verify the design in RTL, FPGA and bringup period
- Verify other misc IPs in some projects(RS232, SPI, Flash Controler, OSD and so on)

2016/9-2017/9 Asic Chip software stack update - INFOTM Senior Software Engineer

Update the whole software stack for new framework to support more flexible video application.

Responsibilities:

- Design the video flow framework and implement the main base job
- Implement most of video modules for new video framework
- Implement supporting modules for new framework (such video filesystem(parse and store bitstream based ffmpeg), rtp tools, video quality setting tools and so on)
- Implement new build system for new software stack, based on buildroot and qemu.

2017/3-2017/11 Customer Support - INFOTM Senior Product Support Engineer

With the chip and software stack update, I switch my work to focus on the support for customers.

Responsibilities:

- Help customers to solve issues during the whole application
- Help customer's hardware/software teams to dig root cause of bug, then solve by myself or assign the solution to correct team
- Track project process

2011/10-2014/4 Bluebird thin Client - Cisco Software Engineer

Build thin client for Virtulization system.

Responsibilities:

- Add networking support for thin client(Wlan Client, Multi-AP, Manage VLAN, TR069, VPN Client)
- Implement management Restapi, web ui and framework modules for aboving modules
- Add CAN-Bus support, including software moduleis, hardware modules and muli-vehicles
- Track the hardware design from Foxconn

2011/10-2012/2 Bluebird vehicle client module - Cisco Software Engineer, Hardware Engineer

A car client module for vehicles, can support the thin client usage and server usage

Responsibilities:

- Add CAN-Bus module to collect the statistics of the vehicles
- Add GPRS/3G moudles to support communication between client and server
- Add Bluetooth moudles to support communication among client, mobile, thin client
- Add GPS support
- Track and double check the HW design of Foxconn