Jingliang Jiang

Love nature, snow and freedom. Never give up and never stop
to seek new chanllege. Hope to experience all 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	Linux, Kernel, GPU, H264, HEVC, FFMPEG, ASIC, RTL, MCU, Git, CI
Opt Words:	PCB, Altium, Scrum, Qt, Flask, Unity, MultiThreading

Technology Stack

ASIC Verification	Video Codec(H264, H265, VP9, AV1, MJPEG), misc interface(rs232, spi,flash)
Video Codec	Have a full understanding about the video codecs, both in asic design and software stack development
Linux	Substantial development experience with Linux, including development for kernel driver , system framework , multithreading and system building.
Language	C/C++, Python, C#, Bash, Java, Javascript, HTML, CSS

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.

Key Words : Linux, FPGA, RTL, CI/CD, H264, HEVC, VP9, GPU

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

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.

Key Words : Linux, Android, OpenMax, Ffmpeg, FPGA, RTL, H264, HEVC, Buildroot, ASIC

- Catch the bringup plan from ASIC design team.
- Custom operating system and kernel
- Develop kernel driver and software framework
- Handle the video codec IP verification.
- Handle the misc IP verification.
- Implement new software video stack for video application
- Support customer for new software stack
- Set CI/CD flow by using Gerrit/Jenkins/Testlink/RobotFramework for ASIC verification.

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

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

Key Words : Linux, Buildroot, MCU, Virtualization, Ffmpeg, Networking, Canbus, Yacto

- Develop Virtualization thin client
- Custom operating system and kernel
- Implement Networking Protocal
- Develop virtualization software client in thin client
- 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.

2010/10-2011/9 Jiangsu Internet of things research and Development Center, Ciotc Development Engineer

Jiangsu IOT center is the overall leading organization unit and technology research and development platform of CAS in the field of IOT.

Key Words : MCU, GPRS, BT, GPS, LBS, Can-bus, PCB, Linux

- Design prototype hardware PCB, implement firmware code, setup test suite.
- Design LBS hardware , wearable equipment, vehicle informaion interaction equipment.
- Analyse market of MEMS chip and wearable equipment.
- Develop Can bus protocal.
- Develop GPS, Bluetooth, GPRS(WCDMA), Can bus and misc driver.
- Develop linux embedded software.

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 :

Key Words : Unity, Android, IOS, Flask, VUE, MIDI, AI, Axure

- 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

Key Words : Linux, FPGA, CI/CD, H264, HEVC, VP9, GPU

- 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

Key Words : Linux, FPGA, CI/CD, H264, HEVC, VP9, GPU

- 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

Key Words : Linux, FPGA, CI/CD, H264, HEVC, VP9, GPU

- 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.

Key Words : Linux, OpenStack, Virtualization, Networking

- 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(pad), Apollo 1/2/x(IPC,SportDV,NVR), Corona 2/3(Game Station for Tencent), I handled the vodeo codec IP verification, including in pre-silicon, post-silicon, driver implement, video framework implement.

Key Words : Linux, Android, OpenMax, Ffmpeg, FPGA, RTL, H264, HEVC, Buildroot, ASIC

- 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.

Key Words : Linux, Ffmpeg, H264, HEVC, Buildroot, ASIC, RTP

- 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.

Key Words : Linux, Android, OpenMax, Ffmpeg, HEVC, Buildroot, CRM

- 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.

Key Words : Buildroot, MCU, Virtualization, Ffmpeg, Networking, IR

- 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

Key Words : MCU, GPS, BT, GPRS, 3G, Can-bus, PCB, FW

- 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

2010/10-2011/9 LBS IOT Development - Ciotc Software Engineer, Hardware Engineer

Key Words : MCU, GPS, BT, GPRS, 3G, Can-bus, PCB, FW

- Add CAN-Bus module to commucate with 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 to query location of vehicles
- Design the hardware board for three different devices, for personal, car, heavy truck.