YUAN Xiaojie

PRESENT ADDRESS
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CONTACT INFORMATION
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EDUCATION

Shanghai Jiao Tong University 2009.9 - 2013.8
Bachelor of Electrical & Computer Engineering
Major GPA: 3.25/4.0
CET-6: 583/710

COMPUTER SKILLS

Proficient in C programming and debugging in Linux environment
Proficient in development tools like Vim and Git
Experienced with programming in C++, Bash and Python
Familiar with DRM/IIO/V4L2/PM subsystems of Linux Kernel

WORK EXPERIENCE

Advanced Micro Devices (Shanghai) Co., Ltd 2016.11 - present
Sr. Software Engineer
Responsible for design, implement and maintain AMD GPU Linux driver

Ambarella Shanghai Co., Ltd 2016.9 - 2016.11
Sr. Software Engineer
Responsible for design and development for multimedia middleware on Linux platform

Sony(China) Corporation Co., Ltd 2014.7 - 2016.8
Sr. Software Engineer
Responsible for design and development for sensor-related Linux driver and middleware

Kingtrust Technologies Co., Ltd. 2013.8 - 2014.5
Firmware Engineer
Responsible for STM32-based firmware development for RFID card reader

RESEARCH AND PROJECT

Pre-silicon bring-up based on Zebu/Veloce Emulator, 2018.6 - present
"AMDGPU Driver Bring-up"
Support new hardware IP cores based on current driver framework.
Implement IP discovery feature to support dynamic IP core addition and configuration.
Co-work with Emulator team to locate and fix potential bugs.

Design and implement CI/CD workflow for testing AMDGPU driver, 2016.12 - 2018.10
"Jenkins Automation System"
Design and implement Jenkins pipelines for deploying and testing AMDGPU drivers.
Implement bash/python helper scripts to build/package/install AMDGPU drivers.
Implement Ansible playbooks to automate configuration on test machines.
Extend shUnit2 test framework to meet actual test requirements.

Development of sensor middleware for Vesper platform, 2015.1 - 2015.5, 2015.11 - 2016.4
"Sensor Service"
Implement plugin which interacts with IIO sensors and sensorhub library.
Implement plugin which replays GNSS/TRAM data from regular file.
Perform integration test with service layer and enhance RPC performance.
Implement unittest for Sensor Service with Python.
Implement sample clients for application team to use.

Development and performance tunning for BMI160 driver,   2014.9 - 2016.7
"BMI160 Driver"
Implement BMI160 driver based on Linux IIO framework.
Add 'force read H/W fifo' feature to reduce latency of reading sensor data.
Implement suspend/resume functionality to reduce power consumption.

Feature implementation for UVC Gadget driver   2015.6 - 2015.10
"UVC Gadget Driver"
Backport configfs feature from mainline kernel to linux-3.10.
Configure and enable super-speed bulk mode UVC gadget.
Fix 'last pixel missing' issue in each video frame.
Add YUV420 format support for uvcvideo and vivi driver.
Optimize program to forward video frames from on-board cameras to UVC gadget driver.

Development of firmware for RFID card reader   2014.2 - 2014.5
"RFID Reader Firmware"
Implement driver for PN512 which performs contactless communication with RFID cards.
Implement peripheral drivers like TFT screen and fingerprint module.
Discuss with hardware engineer to optimize PCB layout.

Capstone Project Sponsored by Intel, Shanghai,   2012.9 - 2012.12
"Video Codec Auto Testing (Phase II)"
Develop a pipelined video codec auto-testing tool with C++ in Linux environment.
Make use of OSS libraries including Xlib, OpenCV, Libdecodeqr to do image processing.
Introduce QR code technique to realize video synchronization and frame-by-frame comparing.

HONORS AND AWARDS

Excellent Graduate, SJTU (top 10%)	2013.6
Third-Class Scholarship for Excellent Students, SJTU (top 30%)	2012.6
Silver Prize of Capstone Projects (2/15 groups)	2012.12

REFERENCE

Github: github.com/llseek