Aston Li 李柏穎

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Experience

Senior Engineer, **Blue Ocean(Deep Ocean) Smart System,** Hsinchu County, Taiwan	Apr 2021 - Feb 2023 · 1 yr 11 mos (company closure)

C, Bash Script, C++, cmake

- Implement a middle layer for data & device operations, as well as an RPC interface, in a multi-chiplet system.
- Build and configure cmake, dependencies, and environments for multiple repositories, various architectures, operating systems, and platforms (including Ubuntu 18,20,22, aarch64, x86_64, and TI arm64).
  - ◆ Cross-compile multiple dependencies including TVM, Python 3.8, LLVM 11, GCC, glog, Boost, etc.
- Develop and maintain build processes for daily builds, auto-testing, releasing SDK, and SDK initialization.
- Perform inference performance analysis of a distributed AI framework system on FPGA/SoC, identifying bottlenecks and optimizing resource utilization.

Senior Engineer, **Igis Technology,** Hsinchu County, Taiwan	May 2019 - Apr 2021 · 2 yrs

C, Bash Script, Assembly

- Optical Fingerprint Sensor Driver, ROI, and Binning
- System Firmware Architecture Design and Development
  - ◆ *BootROM, BSP, Security Update, ISR, IRQ APIs*
  - ◆ *Performance Optimization, Cache, Makefile, Linker Script*
- Implement Command Line Interface(UART) and Porting FreeRTOS
- FPGA/SoC Verification(Digital/Analog) and HAL Development
  - ◆ *UART, GPIO, Interrupt, Timer, TCON, SPI slave*
  - ◆ *DSP, DMA, System Bus, PMU, ADC, WFI, Power Saving mode*
- Tools and Technologies
  - ◆ *Andes N25f/AE250, IDE, Logic Analyzer, Scope, Arduino, Encryption, Git*

Firmware Engineer, **Phison Electronics**, Miaoli County, Taiwan	Sep 2017 - Apr 2019 · 1 yr 8 mos

C, Assembly

- NAND Flash Controller IC HAL Development
- FPGA/SoC Verification(Digital)
  - ◆ *NAND Flash IP, Error Handling(Raid)*
  - ◆ *Coprocessor Communication between ARM R5 and Andes N8*
- Tools and Technologies
  - ◆ *IDE, Logic Analyzer, Synopsys HAPS, Cadence Palladium, Verdi, SVN*

Software Engineer, **Montage Technology**, Taipei, Taiwan	Mar 2015 - Aug 2017 · 2 yrs 6 mos

C, Bash Script, Assembly, Python

- **Montage Employee of the Year 2016 (the only winner in Taiwan)**
- Implement IoT Applications(SDK) using FreeRTOS and Performance tuning
  - ◆ *UART software Flow Control, AT CMD parser, Transparent Mode(Wifi-to-serial)*
  - ◆ *OTA update FW, Power Saving Mode, software I^2C Master*
  - ◆ *Porting libraries: MQTT, wolfSSL, axTLS, cJSON*
  - ◆ *AWS IoT Server Connection Applications*
- FPGA/SoC Verification(Digital/Analog) and HAL Development
  - ◆ *GPIO, PWM, UART, I^2C Slave, USB(UDC, CDC), Timer, PMU, Interrupt, OTP, ADC, DAC*
- Implement IC FT ATE, White-box Test, and WiFi Module Mass Production Test Firmware
- Tools and Technologies
  - ◆ *C-SKY, GDB, Logic Analyzer, Scope*
  - ◆ *FreeRTOS, Linux, eCOS, ROM, Bootloader, SVN*

Firmware Engineer, **Delta Electronics**, Taoyuan County, Taiwan	Jul 2014 - Feb 2015 · 8 mos

- Implement Semiconductor Fab Equipment Power Supply & High-Voltage DC Power Supply
- Tools and Technologies
  - ◆ *DSP, MCU, PWM, ADC, DAC, Scope*

Education

National Taiwan University of Science and Technology	Sep 2012 - Jun 2014
Master's degree, Electrical and Electronics Engineering	
National Taiwan University of Science and Technology	Sep 2008 - Jun 2012
Bachelor's degree, Electrical and Electronics Engineering	

Certification

TOEIC: 660, GEPT: Intermediate