PROFILE

Embedded Software Engineer with 2+ years of experience developing embedded Linux solutions for automotive HPC platforms, specializing in Linux kernel development, device drivers, and camera system integration. Skilled in Agile (SAFe) development practices, system optimization, and cross-platform communication between Automotive Controllers, Linux, and Android systems. Passionate about delivering high-performance embedded solutions in fast-paced environments.

CONTACT

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85019388

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Languages

English
Chinese
Malay

BOON MING SHEN

PROFESSIONAL EXPERIENCE

Celestica - Shopfloor Engineer Intern

- Assisted in managing and tracking Bill of Materials (BOM) for production processes, ensuring that all necessary components were available and correctly documented.
- Worked closely with manufacturing teams to ensure smooth workflow and timely availability of materials for production.
- Supported the shopfloor engineering team in troubleshooting and resolving material-related issues that impacted production timelines.
- Assisted in the coordination and inventory management of materials, ensuring accurate stock levels and minimizing production delays.
- Contributed to improving material handling and tracking systems to streamline operations and increase efficiency.

Continental Automotive — Embedded Software Engineer
February 2023 – Present

- Developed and optimized embedded Linux software for High-Performance Computing (HPC) cockpit systems.
- Implemented Linux Device Drivers for camera modules and framebuffer-based display outputs.
- Integrated and validated SurroundView Monitoring (SVM), Rear View Camera (RVC), and Driver Monitoring Systems (DMS) in embedded environments.
- Customized Yocto-based Linux distributions and enhanced Linux Kernel for automotive applications.
- Designed and implemented Inter-Partition Communication (IPC) between Automotive Controller OS and Linux systems, as well as Linux to Android partitions.
- Performed boot time reduction and system stability optimization through kernel tuning and performance profiling.
- Worked within Agile (SAFe) development environment, participating in sprint planning, reviews, and continuous integration.
- Collaborated with cross-functional teams (hardware, system, Android) to achieve seamless integration across multi-OS systems.

SKILLS

- Embedded Linux Development: Kernel Programming, Device Drivers, Yocto Project, U-Boot
- Camera Systems: V4L2, Framebuffer, SurroundView Monitoring (SVM), Rear View Camera (RVC), Driver Monitoring System (DMS)
- System Optimization: Boot time reduction, performance tuning, memory optimization
- Partition Communication: Automotive Controller to Linux, Linux to Android (IPC Mechanisms)
- Software Tools: Git, Bitbake, GDB, dmesg, system-analyzer
- Programming Languages: C, C++,Python, Shell scripting
- Automotive Communication: CAN, Ethernet, SOME/IP
- Development Methodologies: Agile, SAFe (Scaled Agile Framework)
- Others: Software Loading, Suspend to Ram, Secure Boot, Troubleshooting & Debugging, System Validation
- MATLAB, PSoC, PLC, C, JavaScript, HTML, CSS, Verilog, LTSpice, Python
- Basic knowledge in circuit and system design, signal processing, electronic component, and information technology

Education

Monash University Malaysia
2018 - 2022
Bachelor of Electrical and Computer Systems Engineering (Hons)
Achievement: First Class Honours
CGPA = 3.716, Weighted average mark (WAM) = 79.982

Sunway College Johor Bahru
2017 - 2018
Cambridge GCE A-Level
Achievement: 1A 3B, Math innovation competition (gold medal)

Sekolah Menengah Kebangsaan Taman Molek
2012 - 2016
Sijil Pelajaran Malaysia, SPM Achievement: 3A+, 4A,3A-