# Feng Wei

Mississauga, ON - Email me on Indeed: indeed.com/r/Feng-Wei/68289ab45e189041

WORK EXPERIENCE

### Sr. technical lead, BSP/embedded software development

Flextronics Inc - Burlington, ON - February 2010 to December 2011

• Developed Android dual screen 2 in 1 smart pad/phone device, focused on Linux kernel implementation, EE design and system bring up
• Developed embedded software and device driver on Freescale iMX51and Texas Instrument OMAP4 processors with C/C++ under Android (Linux)
• Led and worked on system bring up and driver development, include touch panel, OLED display, audio/video, camera, sensors, battery monitoring/charging, power management, etc
• Integrated Wi-Fi/Bluetooth and 3G modem with Android system, focus on system interface
• Ported TI OMAP4430 Android release to customized handset hardware. Responsible for migration of customized kernel devices driver to new release source tree.
• Developed FPGA logic for display circuit

### Sr. Software developer

Christie Digital Inc - Kitchener, ON - June 2009 to January 2010

• Developed high-performance visual display solutions for simulation, control rooms and computer modeling
• Developed embedded software and device driver for professional projection system on Freescale and Texas Instrument processors with C/C++ under Linux
• Developed project array with standard bus protocols such as I2C, SPI, UART and Ethernet
• Developed and implemented color matching algorithm for project array
• Developed driver and debugged FPGA implementation

### Technical lead of Embedded Software

Logitech Inc - Mississauga, ON - September 2005 to January 2009

• Lead embedded software team to developed Harmony Smart State universal remote controller with RF, touch screen on ARM processor and PIC microcontroller with C and assembler.
• Lead product road map development, product front-end research, focused on EE, firmware and embedded software technology.
• Implemented multi-processor communication and debugged on multi-processor hardware platform with embedded real-time OS.
• Developed device drivers, implemented peripheral interface, include NAND, NOR, KEYPAD, LCD, SPI, I2C, USB, UART and GPIO.
• Designed and developed the RF communication protocol between remote and RF extender.
• Lead system integration and resolve electrical and firmware/software issues.
• Designed and implemented unit test and manufacture test software.
• Worked with EE designer to optimize power consumption and pass the compliance test, resolved EMI and EMC issues.

### Director of Engineering, Project Leader

GAO Research Inc - Toronto, ON - October 1998 to August 2005

• In charge of customer project and product development team, responsibility for project planning, organizing, tracking and delivery commitment

• In charge of product architecture design and project execution, working as a mentor of technical team
• Lead core technology development and baseline code innovation, establishing software quality system
• Integrated voice, fax, modem into embedded system, creating converged network of PSTN, wireless and IP network
• Designed architecture for wireless terminal and base station, integrated software modem, fax and voice module, implemented inter-working function with 3GPP, 3GPP2 protocol.
• Designed architecture for media gateway, implementing voice, modem, and fax over IP protocol (SIP, V.150, T.38)
• Improved software modem, fax, voice codec, and telephony products, including algorithm innovation, software architecture and hardware design
• Designed and implemented telecommunication subsystem on multi-task application in various customer projects.
• Integrated the software modem/fax, voice modules into over IP/wireless network products. Implemented system boot up code, programmed device drivers, designed data communication between DSP and host processor, programmed test code on various host system.
• Integrated the software modem/fax, voice/video modules into Set-Top-Box, POS terminal, video phone, and security system by C/C++
• Implemented software modem, fax and voice into FPGA design, optimized for Xilinx Virtex-4 and Spartan-3
• Designed PCI prototype board for high speed software modem with FPGA logic design
• Designed multiple prototype boards for different applications, including CPU board, digital and analog interface board
• Provided modem/fax reference design and evaluated customer DSP system schematics
• Programmed device drivers in C and assembler on DSPs and processors, familiar with hardware peripheral and system boot up, ISR/IST, inter-processor communication, multi-task, etc.
• Ported modem/fax software, telephony, and audio/video codec on multiple DSPs and processors, such as TI DSP, TI OMAP, ADI Blackfin, ARM, PowerPC, MIPS32/64, ST20/40, Philips Nexperia, Motorola Freescale DSP, Samsung, Maxim, Marvell etc.
• Integrated software modem/fax and audio/video codec modules on multiple real-time operating systems, such as DSP/BIOS, Windows CE, pSoS, embedded Linux.

### Research Engineer of R&D Department

Stoval Technologies Pte Ltd - Singapore - January 1998 to March 1998

• Designed smart card application system for local hospitals in Singapore.
• Designed board with Dallas DS80C320 and CPLD, developed the logic for CPLD
• Programmed software with Visual C++ on PC and with C on DS80C320

### CTO of Overall System Design Department

China RIDA System Equipment Corporation - ### - July 1990 to December 1997

CTO of Institute of Information System
Director of Dept. of Information and Automatic Control
• In charge of product architecture design, hardware/software design, and project management
• Responsibility for project planning, organizing, tracking and delivery commitments
• Lead research areas and projects for new technologies to advance product development
• Designed of CPU board, communication board, display board, and I/O boards and other circuit board with Dallas DS5002FP, Intel MCS 251, MCS 96, Motorola 68000
• Developed software in C/C++, PLM and assembler
• Designed logic for Altera EPLD, Xilinx FPGA and CPLD
• Programmed user interface software on Windows with Visual C++
• Certified the products by the Ministry of public security and Ministry of Science and Technology

• Successfully delivered the following projects
1. Smart card POS terminal system for China Industry and Commercial Bank
2. Doors access system
3. Electrical control and protection system of the first long wave transmitting station
4. Numerical controlled grinder system for the First Automobile Plant of China
5. PLC controller and servo motor control system
6. Control system of the intelligent high voltage power grid fragment alarm system
7. Real time artificial intelligence-simulating controller
8. Real time intelligent analyzer and control system for aluminum foil roller system
9. Real time remote control terminal of electric power distribution system

EDUCATION

### Bachelor of Science in Electrical engineering

Tsinghua University - ###
January 1985 to January 1990

ADDITIONAL INFORMATION

Professional skills
• Over 20 years experience in design and development of real-time embedded systems for industrial and consumer products
• Comprehensive knowledge of the product development cycle from market analysis through product design, engineering implementation, manufacturing, and end user supporting
• Proven accomplishments in embedded system development and integration
• Experience in handheld devices, industrial/consumer electronic product development and manufacture
• Highly skilled in real-time systems programming with C/C++ and assembler on embedded device
• Extensive experience on device driver development for various OS (Android, Linux, WinCE, DSP BIOS, QNX, etc)
• Solid experience and in depth knowledge of converged network of wireless, PSTN, and IP network technology
• Extensive knowledge of smart phone, wire line modem and fax technology and wire line/wireless protocol and IP protocol
• Knowledge of audio and video encoder/decoder technology
• Broad experience with DSPs and processors(ARM, PPC, PIC, etc), include different processor architecture, memory, interrupt, DMA, cache, and various peripherals
• Extensive experience in digital system design, include boards and systems level hardware design and FPGA/EPLD programming
• Excellent system analyses and troubleshooting skills