Kyosook Shin

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Summary

Embedded/Web software engineer with 10+ years of experience in various industries. Enthusiastic in learning, passionate about new technologies, and familiar with complex software development from the very low software layer, middleware, up to the front-end web development.

Experience

Dimedi Korea. Korea. June 2013 – Aug 2014
Senior Engineer
Projects
Dicom PACS software development

- Developed Web-based/Stand-alone ZeroPACS software that can acquire, store, transmit and retrieve medical images (CT, MRI, CR, DR, PET, etc)
- Implemented/Tested/Delivered standard DICOM Communication between diagnostic devices to ZeroPACS server/viewers. (Dcmtk library porting, interface layer, user application layer development)

Medical Gamma Camera development

- Developed Gamma Camera user interface application & firmware.

Samsung Electronics. Korea. Sep 2002 – Aug 2012
Senior Engineer
Projects
Software System Engineering (2008~2012)

- Platform integration and redundancy elimination project
  - Integrated the best three software packages into one platform for further consistent Samsung Mobile software base model.
- Established/Trained/Supported Software strategic team in the Samsung Beijing Office.
  - Set up/Ran Beijing Software Strategic Team.
- Platform architecture analysis and optimization
  - Optimized/Guided 10+ software platforms to follow standard Samsung architecture and design patterns.
- Dynamic analysis tool development
  - Planned/Started developing Samsung dynamic analysis tool to identify performance bottlenecks.

WCDMA/HSDPA Modem Development (2002~2008)

- Developed Prototype/Simulation programs for HSDPA functionalities based on 3GPP TS 25.101, TS 25.211, TS25.212, TS25.213, TS25.214, TS25.215
- Developed 3GPP 25.322 functionalities and tested. Concentrated on Layer 3 RRC (control plane) functionalities.

Skills & Tools
Web Application Development
- Front-End: HTML, CSS, JavaScript, Web-APIs, JQuery, Third-Party APIs, Server-Side APIs
- Back-End: Node.js, OOP Programming, Test-Driven Development (Jest), Express.js, MVC pattern
- Database: Client-Side Storage (IDB, LocalStorage), SQL, ORM (Sequalize, Mongoose)
- Configuration: Git, Heroku

SDLC (Software Development Cycle):
- Experienced in full software development life cycle from requirement analysis, testcase automation, unit test and integration test, up to high level analysis, detailed level analysis, implementation, testing, delivery, deployment, and on-site maintenance.

Microcontrollers:
- ARM Cortex-M series, PowerPC 860/8240, Raspberry Pi, Beagle bone, Atmel
- BSP (Board Support Package) and kernel initialization, IRQ (interrupt control request), OS integration

Peripheral control (Device Drivers):
- Communication (packet control): ATM SAR, Ethernet, TCP/IP, UART, HDLC
- BUS and miscellaneous: PCI, ISA, GPIO, I2C, Timer, RTC for real-time kernel

Embedded Operating Systems:
- OS porting to embedded Linux, VxWorks, Nucleus, and to a proprietary tiny-OS

Software Development Environments
- Visual Studio .Net, Unix/Linux shells (Bash, C shell, K shell), QT, Eclipse, NetBeans

Telecommunication Protocols:
- ATM, TCP/IP, Frame Relay: IPoA (IP over ATM) frame encapsulation/decapsulation, UNI/NNI/PNNI, ATM interworking with Frame Relay (packet interoperability function development)
- TCP/IP socket communication, TCP/IP routing signaling.
- WCDMA/HSDPA: 3GPP PHY/MAC/RRC layer software development/optimization

Programming Language:
- C/C++/C#/CHILL, ARM Assembler, PowerPC Assembler, JavaScrip, Python
- DREAM-S, SQLite, Microsoft SQL Server, Linux SQL Server

Open Source: OpenGUI, DICOM, Qt, SQL, Ubuntu
Software Tools: Klocwork, CppTest, UML/SLC, Clearcase, Git, Minitab

Education
UT Austin Boot Camps. Austin, TX. July 2023-Jan 2024.

Austin Community College. Austin, TX. Jan 2020-Dec 2023
Associate of Science A member of Honor's society, Phi Theta Kappa Honor society; GPA 4.0

Yonsei University. Korea.
Bachelor's in Electrical and Electronics Engineering.

Certifications
- Six Sigma Master Black Belt: MBB-0800044-SEC awarded on 12/31/2008
- ISTQB (International Software Testing Qualification Board): #istqb-kstqb-2011757 awarded on 12/1/2011

Language
- Korean (native, read/write/speak)
- English (fluent, read/write/speak)