JAYDEEP CHOKSHI

Email: chokshi.jaydeep@gmail.com Contact: (732) 306 6920

CAREER GOAL

Seeking fulltime in growth oriented firm, where over four years of technical experience will add value.

ORGANIZATIONAL DETAILS

Senior Software Engineer **Qualcomm Inc.** **San Diego, CA** (October 2009 – Present)	System Performance Engineering Team, IPA-QCT Memory: • Design and implemented ingenious Context Aware Memory Analyzer tool. It profiles CS kernel heap. It helps profile fragmentation, usage pattern, detects memory corruptions, etc. Tool is used extensively by in-house and OEM customers. • Design and enhanced CS Heap statistics and analysis toolset for low memory footprint chipsets ETM • Extensive experience of on-device JTAG debugging and tracing. • Collaborated in design and implementation of industry standard BMP Tracing Framework (BTrace). Analogous to DTrace©, It is low intrusive, low MIPS. Both Brew layer and CS can use it. The trace can be stored to in-memory, PFT, STM, ETB, or streamed to USB gateway. • Design and enhanced Trace capture framework using Lauterbach T32. It ensembles a gamut of CMM scripts that work across the range of chipsets, i.e. 6K, 7K, and 8K. The framework is used by SD and QIPL teams predominantly. • Worked with Lauterbach to add new features to T32 software to align it well enough with BMP OS. • ETM bring-up on various low-end chipsets like 6270, SC2x, and 7227. Performance Triage • Helped OEMs like ZTE, HTC to solve performance issues ranging from high level (Memory, UI response, DS) to API level. • Proposed and prototyped architectural enhancements in BMP OS with respect to memory performance. • Collaborated in design of Performance Application Suit to produces baselevel statistics across various chipset with respect to BMP builds. • Led various in-house CE teams to help them with performance triage at QIPL and held training sessions on Component Service, QNK concepts.
Intern Software Engineer **Qualcomm Inc.** **San Diego, CA** (March 2009 – September 2009)	System Performance Engineering Team, IPA-QCT • Imparted trainings on software design and development on ARM11/Cortex, Coresight design, Multicore software design, Advanced Linux kernel programming. • Developed CS Heap Tracker Tool to track the heap allocations on device in order to detect the memory leaks, also supported Simulation extension on Windows. • Performed JTAG Debugging with TRACE32 on 6K, 7K and 8K platforms. • Analyzing browser performance issue on 8K platform. • Developing TRACE32 scripts for feature enhancements
Intern Software Engineer **NextWave Broadband Inc.** **San Diego, CA** (Jun 2007 – January 2009)	Lower Media Access Control (LMAC) protocol stack • Feature development for Montavista Kernel, PCI device drivers programming. • Collaborated in designed O(1) scheduler for HMAC • Developed cross platform Build environment • Ported target-side code over ThreadX with drivers back porting • Improved plug&play feature to release version • Experience using Green Hills environment • Design and implemented make build system that works green hill makefiles

Intern Software Engineer **NextWave Broadband Inc.** **San Diego, CA** (Jun 2007 – January 2009) **Contd…**	Host side device driver development • Resolving stability issues in drivers such as kernel OOPs, cross compilation • Feature development in drivers stack • Developed Real time hooks to satisfy deterministic behavior of 5ms for 802.16 frame in Kernel • Freescale imx.27 ADS, LogicPD lite kit and Mistral board bring up, developed bring-up script for Lauterbach debugger for imx.27 • Developed a host side user application that uses Connection Framwork (CF) library, to serve as an Agent for other user applications for local/remote communication • Cross compilation of Host software for Embedded platforms (ARM9)
Software Engineer **Cisco Systems Inc., India** (Sep 2005 – Jun 2006)	Shared Port Adapter (SPA) driver development • Packet over Sonet (POS) and Ethernet, 2/4 port, SPAs drivers • Performed feature stability checks, support and improvements • Bug fixes
Software Engineer **KAMTECH Ltd., India** (Service Oriented Company) (Sep 2004 – Sep 2005)	Linux device drivers support • Implemented on USB mass storage driver and graphical viewer • PC/AT-PCI bus based Ethernet Network Interface Card device driver • Implemented NAPI functionality in driver (kernel 2.4) to make it efficient in high Bandwidth system • Developed Ethernet Emulation software using TUN/TAP interface

TECHNICAL PURVIEW

- **Languages**: C, C++, ARM Assembly, JAVA, Python
  Proficiency: Excellent (C), Intermediate (C++, ARM Assembly , JAVA, Python)
- **System Programming Under Linux**: memory layout of C program Setjmp and longjmp functions, Unreliable and Reliable signals, TCP/IP network programming, Interprocess Communication using Posix & System V IPC, Mutex, Semaphores, shared memory
  Proficiency: Excellent
- **Posix Multithreaded programming**: synchronization of threads Attributes, scope, cancel ability and policies, Priority Inversion & Inheritance.
  Proficiency: Excellent
- **Linux Device Driver**: Char device drivers, USB Drivers, Network Drivers, Interrupt handling, Bottom halves, DMA.
  Proficiency: Excellent
- **Embedded Technologies**: ARM, Intel, Montavista Platform development using GNU toolchain.
  Proficiency: Intermediate
- **Tools**: Doxygen, Eclipse, TRACE32, RVCT, Perforce
  Proficiency: Excellent (TRACE32, Eclipse), Good (RVCT, Doxygen, Eclipse, Perforce)

ACHIEVEMENTS

- Received two QualStar awards at Qualcomm. Received the first one in just a span of six months of joining, for outstanding contribution towards achieving team goals and impeccable performance.
- Came up with a unique hot plug PCI support for Montavista/Adlink boards at Nextwave Broadband Inc.
- Received a capability achievement award for outstanding performance at Cisco Systems Inc.
- Recognized as best collaborative-mate at KAMTECH Ltd.
- Received Third position in National Level Software Project Competition among 67 projects in Final Semester of under graduation in India

CERTIFICATION

Red Hat certified Engineer (RHCE): Certificate Number: 803004584511827. **Score: 94**

EDUCATION

Master of science in Computer Science	**Bachelor of Engineering in Computer Engineering**
San Diego State University – CA GPA: 3.57/4.0	**Nagpur University – MS, INDIA GPA: 3.8/4.0**

REFERENCE: Available upon request.