

# CHINTAN PARIKH

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<b>OBJECTIVE</b>	To obtain a fulltime position in the Software development
<b>EDUCATION</b>	<b>CARNEGIE MELLON UNIVERSITY</b> , Pittsburgh, PA M.S. Electrical and Computer Engineering QPA: 3.45/4 <b>DEC 2010</b> <b>NATIONAL INSTITUTE OF TECHNOLOGY</b> , Trichy, India B.Tech. Instrumentation and Control Engineering CGPA: 8.31/10 <b>MAY 2007</b>
<b>WORK EXPERIENCE</b>	<b>Cisco Systems</b> , San Jose, CA <b>SUMMER 10</b> Graduate Intern, <b>Network Software and Systems - Architecture Group</b> <ul style="list-style-type: none"><li>Worked on <b>Cross-OS</b>, an OS agnostic library running on top of different internal OS</li><li>Developed new API's for managing <b>Lock-free</b> Trace buffers and memory tracking through named Malloc extensions [C, OS, Testing, Portability]</li></ul> <b>ST-Ericsson</b> (JV by STMicroelectronics & Ericsson Mobiles), Bangalore <b>OCT 07- JUL 09</b> System Software Engineer, <b>Mobile Platforms division</b> <ul style="list-style-type: none"><li><b>Module lead</b> for Video Telephony, Call and core MMI modules</li><li>Worked through entire lifecycle of <b>3G Product</b>, from initial design till mass production</li><li>Delivered training on, "Debugging techniques using <b>JTAG Trace32</b>" [C, Embedded]</li></ul> <b>Teaching Assistant</b> , Carnegie Mellon University <b>SPRING 10 - CURRENT</b> <ul style="list-style-type: none"><li>"Embedded Real-time Systems" (Prof. Raj Rajkumar), ported lab to <b>Droid</b> phones</li><li>"Rapid Prototype of Computer Systems", helped class to develop "Mobile Health Kiosk"</li></ul>
<b>COURSES</b>	Operating Systems Design (410), Embedded Real-time Systems (648), Advanced Storage Systems, Computer Architecture (740), Computer Networks (441), Secure Software Systems
<b>PROJECTS</b>	<b>Linux Kernel Programming, Power Management for Android G1</b> <b>FALL 09 – SPRING 10</b> <ul style="list-style-type: none"><li>Implemented "<b>Resource Kernel</b>" a Real-time feature into the Android Linux kernel</li><li>Added new power management DVFS schemes such as "Sys-clock" and "PM-clock"</li><li>Profiled phone to figure out power consumption for various components such as Wifi, GPS, Display with varying load and frequency [C, Linux, Real-time, Hardware]</li></ul> <b>x86 Kernel from scratch!, Thread library, Operating Systems Design (410)</b> <b>SPRING 10</b> <ul style="list-style-type: none"><li>Written a UNIX like kernel featuring; Multithread support, Preemptive Multitasking, Virtual memory, Interrupt handling, Device drivers, Shared Memory extensions</li><li>Designed User Space Thread library featuring; Thread life cycle management (create, join, exit etc.), Synchronization primitives such as Mutex, Condition Variables, Semaphores, RW lock. [C, OS, Concurrency control, Assembly, Debugging]</li></ul> <b>File System Consistency Check, Hybrid file system, Storage Systems</b> <b>SPRING 10</b> <ul style="list-style-type: none"><li>Developed a file system consistency check (fsck) utility for <b>Ext2 file system</b></li><li>Designed a novel <b>flash'n'disk</b> Hybrid file system using FUSE, key idea is to put small files to solid state disk and big files on magnetic disk to speed up [C, File Systems]</li></ul> <b>Caches, Parallel Programming, Asymmetric Multi-cores, Computer Architecture</b> <b>FALL 09</b> <ul style="list-style-type: none"><li>Used Pin (Dynamic Binary Instrumentation) to write a <b>tool to analyze Caches</b></li><li>Parallelized a VLSI Wire Routing algorithm using <b>OpenMP</b></li><li>Evaluated a new pipelined decoding scheme for <b>JM H.264 Decoder</b> on Asymmetric Chip Multiprocessor (ACMP) architecture [C, OpenMP, Simulation]</li></ul>
<b>COMPUTER SKILLS</b>	<b>Programming Languages:</b> C, C++, Assembly (x86, ARM) <b>Applications, Tools:</b> JTAG Debugger, MATLAB, Visual DSP++, LabVIEW, Version control
<b>AWARDS</b>	<b>NXP Global Prize</b> , by NXP Semiconductors for contribution to <b>3G System solution</b> project. <b>Ideaz Prize</b> , by National Innovation Foundation in recognition of submitted idea.