

JOON W LEE

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CAREER OBJECTIVE

To obtain Computer Engineering Intern position requiring my analytical, interpersonal and communication skills.

EDUCATIONS

M.S. ECE (Computer Engineering specialization), University of California, San Diego (UCSD) (12/2011)
Cumulative GPA: **3.6**

B.S. Computer Engineering, University of California, Riverside (UCR) (06/2010)
Cumulative GPA: **3.562** Major Upper Division GPA: **3.849**

SKILLS

Technical Skills

- **Programming:** C, C++, Python, Ruby on Rail, VHDL, SQL/PHP, Verilog, Matlab, Assembly
- **Tools:** VHDL, Synopsys Design Compiler (synthesis), Prime Time (Static Timing Analysis), Xilinx ISE, Microsoft Office (access, excel, word)
- **OS:** Unix/Linux, Windows

Additional Skills

- Fluent in English and Korean

RELEVANT EXPERIENCES

Qualcomm Interim Engineering Intern

Jun 2011 – Current

Qualcomm Korea

- Android applications with JNI implementation
- Implemented the feature extractions from the images using different methods and analysis the efficiency and importance

Python & Matlab Programmer for Humming bird research

July 2010 – Sep 2010

UCR Bio Research (Dr. Altshuler, Douglas)

- Implemented a program to capture the humming bird wing beat frequency in different positions
- Generated multiple graphs examining the humming bird's behavior during feeding

Continuous Time Bayesian Network (CTBN)

Sep 2008 – June 2010

UCR CS Research (Dr. Christian R. Shelton)

- Wrote the programs in C++ for the automatic data visualization of CTBN and Clique trees
- Wrote the CTBN Decision Processes (Linear programming) to enhance the functionality and speed of CTBN computations
- CTBN Decision Processes on Conference SCCUR 2009
- Christian R. Shelton, Yu Fan, William Lam, **Joon Lee**, and Jing Xu (2010).
“**Continuous Time Bayesian Network Reasoning and Learning Engine.**”
Journal of Machine Learning Research, 11(Mar), 1137-1140.

U.S. Army

Nov 2001 – Apr 2006

Administrative Specialist (19th ESC IG)

- Managed a filing system (Microsoft Office Access, excel, word) and translate Korean to English
- Tasked as IMO (Information Management Officer) for IG.

PROJECT

HW/SW Co-processor

- Implemented the 802.11 MAC layer using only software and combination of software and hardware
- Determined the most time consuming operation in hardware to increase its performance. Compare the different in two different implementations and efficiencies.

Viola and Jones Object Detection on FPGA

- Construct the intelligent camera trap using the Viola-Jones Face detection algorithm in Spartan 6 FPGA.
- Used the low power FPGA board to construct the real time face detection

Physical Design RTL to GDS II (VLSI IC Design)

- Implemented the open-source version of UltraSPARC viz. OpenSPARC by using the ASIC design flow and at also emphasis on minimizing the cost factor, (Chip Area * Leakage Power * Operating frequency)
- Gained knowledge on Synopsys and Cadence tools and the various steps in the ASIC flow like Synthesis, Floorplan, Powerplan, Placement, CTS, Routing, IR Analysis, RC Extraction and Timing Signoff.

- Gained the knobs available in the tools to optimize for area, power and meet timing.

Ping Pong game on Spartan 3E

- Created the ping pong game on Spartan 3E and use the VGA to display the contents.

WEP Encrypt Engine

- Implemented WEP encrypt for 802.11 in verilog. Different coding strategies exploited to optimize cell area.

DVFS and DPM (Embedded system)

- DVFS and DPM policies implemented in Android 2.3 Cyanogen on HTC Aria phone for enhancing Battery life
- Gained knowledge on the different performance counters to calculate the current most effective frequency.

Instant Message (Network)

- Created in C++ using the UNIX API. The server allowed clients to forward messages in non-blocking manner.

UCRTube (Software Engineering)

- Created "youtube" like website using the Ruby on Rails application which can be run on Windows, OS X, or Linux.

Database for concurrent system (Parallel Systems and Concurrent Programming)

- Created the concurrent accessible database for store using the *Pthread*.
- The project consisted of creating multiple stores, and bounding them into either area or group by accessing one consolidated database without crashing.

ACTIVITIES AND AWARD

- Member, Tau Beta Pi

- Member, Student Conduct & Academic Integrity Programs (SCAIP)

- Chancellor's Honors List

- Dean's Honors List

- CCRAA Grant

WORK AUTHORIZATION

US Citizen & California Resident