

Ratchapong Tangkijvorakul

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OBJECTIVES

To secure an internship in Summer 2015 that allows me to utilize and improve my analytical and interpersonal skills.

EDUCATION

Georgia Institute of Technology, Atlanta, GA

Bachelor of Science in Computer Engineering, Minor in Computer Science
Faculty's Honor (Expected)

Aug. 2012 – Present
Fall 2016 (Expected)

Overall GPA 4.0/4.0, Faculty's Honor

ACS International High School, Singapore

International Baccalaureate Diploma

Jan. 2006 – Nov. 2011

IB Score 44/45, Top in High School, 99th Percentile in the world (7000 candidates)

SKILLS

- Programming: Experience with MATLAB, C, C++, VHDL, HTML, Assembly, Java and C# (In progress)
- Software: Proficient in Microsoft Office, Adobe Dreamweaver, Photoshop, QtSpim and Altera Quartus II
- Communications: Technical writing and presentations
- Languages: Fluent in writing and speaking English, Chinese and Thai
- Music Creation/ Production: Pianist and Guitarist

EXPERIENCES

Bangkok Bank Information Technology Department

Computer Engineer Intern

May 2014 – Jul. 2014

- Gained experience from Bangkok Bank project which handles business to business (B2B) transactions.
- Drafted the project questionnaire which includes gathering payment requirement from the users.
- Created a UML sequential diagram to illustrate the payment process between the clients and the bank.
- Evaluated EKO pioneer software that was used in Bangkok Bank to enhance collaboration and social strategy.
- Constructed a software assessment sheet to evaluate EKO level of functionality and usability.
- Reported software bugs and consolidated negative feedbacks that helped to improve the software usability.

Teaching Assistant for Digital Design Lab (In progress)

Fall 2014

- Guided students in the completion of lab assignments and showed them the proper handling of hardware.

VGDev Interactive Game Design Club (In progress)

Fall 2014

- Enrolled in a team game design project which uses C# with Unity Game Engine to produce a 3D games.

PROJECTS

Train Track Simulation using VHDL and State Machine – Digital Design Lab

Fall 2013

- Compiled a 12-State Moore Machine with VHDL to schedule two trains to run on a shared track without collision.
- Produced a clean and professional UML state chart to illustrate a specified train path.
- Acquired full score on the lab report for correct formatting and functioning code.

I2C Controller with SCOMP I/O Interface – Digital Design Lab

Fall 2013

- Created an I2C controller with SCOMP I/O interface that communicated with DE2 board according to I2C protocol.
- Allowed user to use infrared remote control to navigate a robot through a maze within shortest time possible.
- Responsible for driving the robot through the obstacles and creating clear presentations for the project.
- Achieved 2nd place (out of 39 teams) for efficiently and implementation techniques.
- Selected by the course instructor for Top Demos and a session was assigned to record a video of the simulation process.

Synthesis of Sinusoidal Signals – Signal Processing

Fall 2013

- Synthesized musical illusion of a Shepherd's Scale using sinusoids frequency analysis in MATLAB.
- Achieved a perfect score for this project (500 out of 500)

Angry Monkey Game Interface with Python – Programing HW/SW System

Fall 2013

- Programmed MBED LPC1768 to recognized four pushbuttons to change game's parameters (Fire,Power,Angle)
- Simulated gaming environment using projectile physics to update the location of the cannon's ball.
- Coded recursive function in C for deletion of pixels which propagated through the branch upon collision.
- Applied knowledge of linked list and hash table data structure.

Find George Pixel Pattern Recognition – Programing HW/SW System

Fall 2013

- Wrote C Code to detect a specific face (upright or may be rotated) in an image that contains a crowd of faces.
- Optimized static and dynamic instructions while translating C Code into MIPS Assembly language.
- Achieved 2nd place (out of 144 students) across both sections for efficient algorithm and coding style.

RELEVANT COURSES

- **Digital Design Lab:** Design implementations of digital systems; included team design project
- **Introduction to Signal Processing:** Covered discrete-time and continuous signals using filtering, frequency response, Fourier Transform, and Z Transforms; included team lab projects.
- **Programming HW/SW System:** Covered execution and storage mechanisms used to support high level programming languages and operating systems; included 2 projects.