

Tanawat Khunlertkit

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EDUCATION

University of Wisconsin-Milwaukee, Milwaukee, WI

Ph.D. Computer Science

Date of Graduation: Expected December 2016

Dissertation Research: Using patient database for statistical analysis in order to predict disease progression of the individual patient based on the current condition

Advisor: Professor Mukul Goyal and Professor Hossein Hosseini

University of Wisconsin-Milwaukee, Milwaukee, WI

Master of Science in Computer Science

Date of Graduation: December 2012

Research Objective: Implementation of security protocols on Vehicle-to-Vehicle Communication. Timing comparison between Elliptic Curve Cryptography and Advanced Encryption Standard.

Advisor: Professor Hossein Hosseini

University of Wisconsin-Madison, Madison, WI

Bachelor of Science in Computer Engineering and Computer Science

Date of Graduation: December 2009

WORK EXPERINECE

Fall 2012 **Teaching Assistant**

- Current **University of Wisconsin-Milwaukee**

Plan and develop curriculum, along with other teaching materials, for lab sessions. Supervise graduate students on semester projects. Classes include:

- *Software Engineering (Spring 2014 - Present)*: Develop weekly activities for students and supervise students on Software Design Pattern.
- *Intermediate Computer Programming (Fall 2013)*: Based on Java programming language using classes, inheritance, exceptions, and simple Graphical User Interface.
- *Introductory to Computer Programming (Fall 2012 - Spring 2013)*: Basic Concepts of programming languages.
- *Introduction to Web Document Production (Spring 2013)*: HTML and CSS.

Summer **College for Teens/College for Kids Program**

2014 **University of Wisconsin-Milwaukee**

Develop and teach courses related to computer programming design for High-school students. Courses include:

- *Create Your Own Computer Games*: creation of Pong and Alien Invasion using Visual Basic.
- *Programming Language*: Basic syntax and logic for programming in Java
- *Design Your Web page*: Using the mixture of Dream weaver and HTML to create a simple web page.

Summer 2007 **Project Assistant**
University of Wisconsin-Madison
 Java programing of Monte Carlo Simulation to identify optimal joint fixtures for automotive assembly line.

ACADEMIC ACHIEVEMENTS

Spring 2013 **CEAS Dean's Scholarship**
 - Spring 2015 Scholarships are given to assist CEAS faculty in recruiting talented students by offering multi-year support to new exceptional graduate students.

Fall 2011 **Chancellor's Graduate Student Awards**
 Awards are given to one of the best students who shows great potential.

ACADEMIC EXPERIENCE

Spring 2015 **Neural Network and Brain Modeling**
 Using Neural Networks and the concept of Principle Component Analysis as a machine learning algorithm to recognize digital hand-written single digits.

Spring 2013 **Information and Coding Theory**
 Implementation of Huffman Coding Compression based on the given text input written in Java.

Fall 2012 **Android Programming**
 Programming android device to work with micro controller via Bluetooth. Commands include reading the potentiometer and reading the temperature on the embedded system written in C.

Spring 2011 **Computer Networks Laboratory**
 Asterisk phone server on Linux router with Session Initiation Protocol (SIP) capability.

Fall 2010 **Software Engineering**
 Music Player coded in Java. Features include drag-and-drop play list from a text file.

Spring 2009 **Embedded System Design**
 Stepper Motor Controller Design written in Verilog, Implemented on ARM-FPGA board, to be integrated with other components.

Spring 2009 **Intro to database Management System**
 Design Back-end for a Simple Database System written in C++.

Fall 2008 **Digital Design and Synthesis**
 Design Calibrated Temperature Integrated Circuit using Verilog and Synthesize with Synopsys.

- Fall 2008 **Intro to Programming Languages and Compilers**
Conversion from high level programming language (C) to Assembly language (MIPS).
- Spring 2008 **Introduction to Operating Systems**
Simulator for comparison of CPU Scheduling Algorithms (Clairvoyance and Priority Queue) written in C.
- Fall 2007 **Introduction to Computer Architecture**
Design a 16-bit Microprocessor with 16 instructions set written in Quartus.

SCOPE OF EXCELLENCE

Computer Languages: Java, C, C++, Python, HTML and CSS, SQL, Go.
Assembly Language: ARM7TDMI, MIPS.
Hardware Language: Verilog, Quartus.
Operating Systems: Windows, Linux, Mac OS X, Unix.
Languages: English (Fluent) and Thai (Fluent).