# Tanawat Khunlertkit

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## Objective

A position in the field of computer programming and machine learning with special interests in medical applications.

## Education

**University of Wisconsin-Milwaukee**, Milwaukee, WI

**Ph.D. Computer Science**

*Date of Graduation:* Expected December 2018

*Dissertation Thesis:* Using patient database for statistical analysis in order to predict the length of hospital stays of the individual patient based on the current condition

**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.

**University of Wisconsin-Madison**, Madison, WI

**Bachelor of Science in Computer Engineering and Computer Science**

*Date of Graduation:* December 2009

## Work Experinece

Fall 2012 - Present **Teaching Assistant**

**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 2014 **College for Teens/College for Kids Program**

**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

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| Spring 2013 - Spring 2015 | **CEAS Dean's Scholarship**<br>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**<br>Awards are given to one of the best students who shows great potential. |

## Academic Experience

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| Spring 2015 | **Neural Network and Brain Modeling**<br>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**<br>Implementation of Huffman Coding Compression based on the given text input written in Java. |
| Fall 2012 | **Android Programming**<br>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**<br>Asterisk phone server on Linux router using Session Initiation Protocol (SIP). |
| Fall 2010 | **Software Engineering**<br>Music Player in Java. Features include drag-and-drop play list from a text file. |
| Spring 2009 | **Embedded System Design**<br>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**<br>Design Back-end for a Simple Database System written in C++. |
| Fall 2008 | **Digital Design and Synthesis**<br>Design Calibrated Temperature Integrated Circuit using Verilog and Synthesize with Synopsys. |
| Fall 2008 | **Intro to Programming Languages and Compilers**<br>Conversion from high level programming language (C) to Assembly language (MIPS). |
| Spring 2008 | **Introduction to Operating Systems**<br>Simulator for comparison of CPU Scheduling Algorithms (Clairvoyance and Priority Queue) written in C. |
| Fall 2007 | **Introduction to Computer Architecture**<br>Design a 16-bit Microprocessor with 16 instructions set written in Quartus. |

## Scope of Excellence

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|---|---|
| *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. |
| *Languages:* | English (Fluent) and Thai (Fluent). |