# Katchaguy Areekijseree

Ph.D. candidate in EECS
Syracuse University NY, USA
**Anticipated Graduation Date: Fall 2019**

7977 170th AVE NE, B427
Redmond WA, USA 98052
katchaguy.are@gmail.com
http://kareekij.github.io
Tel: 315-380-2470

— Dedicated and passionate software engineer with deep understanding of algorithms and state-of-the-art technologies. Extensive experience with full life-cycle of software development process. Special expertise in the following areas: System and Software Design, Social Network Mining, Machine Learning, Natural Language Processing, Algorithms and Optimization.

## Education

**Ph.D. candidate – 2014-Present**
Syracuse University NY, USA.
CGPA: 3.742

**M.Eng — 2012-2014**
KMUTT Bangkok, Thailand.
CGPA: 3.85

**B.Eng — 2008-2012**
KMUTT Bangkok, Thailand.
CGPA: 3.6 (First class honors)

## Skills

**Languages:**
Thai: Native
English: Proficient/ Fluent

**Programming Languages**
Python, Java, JavaScript, C#, R

**Framework**
jQuery, NodeJS

**Databases**
MySQL, MangoDB, SQLite

**OS**
MacOS, Linux, Windows

**Others**
Git, SVN, NetworkX, Hadoop

## Coursework

Data Structures and Algorithms
Data Mining/Text Mining
Natural Language Processing
Social Network Dynamics
Social Media Mining
Structure of Complex Networks
Optimization
Mathematical Modeling
Parallel Computing

## Experience

**Research Assistant — Syracuse University, USA** **2015-Present**
Research Assistant under the supervision of Prof. Sucheta Soundarajan. The work is in the area of network mining. The main research topic is network sampling through data crawling. **Link**

*Python, NetworkX, R, Experiments*

**Teaching Assistant — Syracuse University, USA** **2014-2016**
Data structure, Probability and Statistics, Advanced Computer Architecture, Programming.

**Research Assistant — Syracuse University, USA** **2015**
Conducted research in the area of privacy-preserving under supervision of Prof. Yuzhe Tang. I worked on optimizing the performance of MPC by using GPGPU for data pre-computation. **Link**

*C++, CUDA, Experiments*

**Software Engineer — Novitat Co.,Ltd., Thailand** **2012-2014**
I worked in a team which focuses on a medical imaging system for visualizing DICOM images (CT/MRI images). My main responsibility was to design and develop a front-end application for visualizing these images. Privacy of the patients' data is the main concern.

*Web Technology, HTML, JS, jQuery, CSS, PHP*

**Software Developer — Freelancer** **2010-2014**
Make-to-order software for local business in Thailand. e.g. Customers support tracking system, POS system.

**Research Intern — Shibaura Institute of Technology, Japan** **2012**
I was part of a research project which focuses on the intelligent space for the elderly people. My responsibility is to develop a module for detecting an irregular heart beat by using RF-ECG sensor.

*C#, ECG sensor*

**Software Engineer/Tester Intern — Innosoft, Thailand** **2011**
My main responsibility was to develop a web-based application, the student registration service, for Kantana Institute.

*HTML, JavaScript, C#*

**Technical Support Engineer Intern — Smart Technology, Thailand** **2011**
I worked as a support engineer intern. My main responsibility was to address customer questions and concerns regarding their company's products.

*VMware, Virtualization technology*

## Links

Portfolio: **http://kareekij.github.io**
Github: **https://github.com/kareekij**
LinkedIn: **https://www.linkedin.com/in/katchaguy/**
Google Scholar: **https://scholar.google.com/citations?user=Ukt9M0UAAAAJ**

## Projects

**Medical Image Viewer** — **System and Software Design**

Designed and implemented a low-cost medical image viewer supports DICOM format. This DICOM image viewer can run on any tablets and PCs. HTML5 and jQuery are used for the implementation. SkyPACS was deployed for pilot testing in couple of hospitals in Thailand. **Link**

**TPW: torebaprizewatcher.com** — **System Design**

A community for Toreba online crane game players. It was launched in May, 2018. The website provides tools and statistical data of past winnings which are aggregated in real-time. The goal is to support the players and help them win the prizes easier (approx. 4000 visits per day). **Link**

**Automatic Product Feedback Summarization** — **NLP/Data Mining**

Designed and developed an NLP-application to automatically summarize a corpus of tweets (80k) using sentiment analysis (Bag-of-words) and topic modeling (LDA) techniques. NLTK is used for text processing. Several classifiers, from Scikit-learn, are used for evaluating the performance (e.g. Naive Bayes, SVM, kNN, DecisionTree, AdaBoost and Random Forest). **Link**

**Sentiment Analysis on Twitter Data @RealDonaldTrump** — **NLP/Data Mining**

Conducted a sentiment analysis on Twitter data using Naive Bayes classifier. The goal was to study how the sentiment changes overtime before the election. NLTK and Scikit-learn are used. **Link**

**Q&A Bot for Online Store** — **ML**

Developed a chatbot that is capable of answering questions of the products using AIML. **Link**

**The Smart House** — **System Design**

Designed and developed an assistive living space for the elderly people, customizable technology modules – e.g., fall and irregular heart rate detection. **Link**

**Community Detection using Genetic Algorithm** — **Research**

Designed and implemented an algorithm based on genetic algorithm for finding communities on grahs (e.g. social networks, collabolation networks, etc.). **Link**

## Achievements/Awards

*2014-2018* **CISE Full Scholarship for Graduate Study, Syracuse University**

*2012-2014* **NSTDA Full Scholarship for Graduate Study**

Project: SkyPACS (Software Competition)

*2013* **Microsoft Imagine Cup World Finals 2013, Russia** — **3rd Place Winner**

*2013* **Asia Pacific ICT Awards, Hong Kong** — **Winner**

*2013* **International ICT Innovative Services Contest 2013, Taiwan** — **Winner**

*2013* **Thailand Microsoft Imagine Cup** — **Winner**

*2013* **Thailand ICT Awards 2013** — **Winner**

*2013* **Thailand National Software Contest 2013** — **Winner**

*2012* **Student Design Challenge Competition 2012, Singapore** — **Winner**

Project: The Smart House (Software Competition)

*2012* **Microsoft Imagine Cup World Finals 2012, Australia** — **Finalist**

*2012* **Thailand Microsoft Imagine Cup** — **Winner**

*2012* **Thailand National Software Contest 2012** — **Finalist**

## Selected Publications


1. Areekijseree, Katchaguy, and Sucheta Soundarajan. ”DE-Crawler: A Densification-Expansion Algorithm for Online Data Collection.” In 2018 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining (ASONAM), pp. 164-169. IEEE, 2018.

2. Areekijseree, Katchaguy, Ricky Laishram, and Sucheta Soundarajan. ”Guidelines for Online Network Crawling: A Study of Data Collection Approaches and Network Properties.” In WebSci, pp. 57-66. 2018.