Yaqin (Emily) Tang

1805 Amanda Ct., Piscataway, New Jersey, 08854
(Mobile): (732) 543-3851 / (Email): yaqin.tang@rutgers.edu

Objective

To obtain a position utilizing my software engineering abilities in the areas of data analysis, cloud computing, system architecture design and web applications.

Education

M.S., Electrical and Computer Engineering **GPA: 3.59/4.00** Jan. 2016
Rutgers, the State University of New Jersey, New Brunswick, NJ, USA
Relevant coursework: Data Structure and Algorithms, Software Engineering, Data Mining, Cloud Computing, Programming Finance, Linux System Administration, Data Communications, Computer Networks, System Analysis.

B.Eng, Communication and Information Engineering **GPA: 3.85/4.00** Jun. 2013
University of Electronic Science and Technology of China (UESTC), Chengdu, China
Relevant coursework: Programming Fundamentals, Computer Architecture, Introduction to Operating Systems.

Technical Proficiencies

Programming Languages: Java (2yr); C++ (3yrs); MySQL, HTML, PHP (2yrs); MATLAB (5yrs); LaTeX (1yr)
Skills: Object-oriented design, Database administration, System development, Git

Course Projects

Data Mining, "Bitcoin Price and Trend Analysis" **Grade: A** Jan.2015-May 2015

- Data mining and regression analysis for bitcoin market price and trend prediction. Programmed C++ for traditional prediction strategies of Bayesian regression, Supporting Vector Machine (SVM) and Hidden Markov model. Implemented newly proposed Google trend and sentimental analysis prediction strategies with Python.

Software Engineering, "Twitter Data Analysis" **Grade: A** Jan.2014-May 2014

- Data mining and statistics analysis on online Tweets about health related activities. Built database and local website to dynamically display the results of the most popular activities discussed in Twitter. MySQL, HTML, CSS, PHP, Javascript were extensively applied.

Work Experience

Research Assistant, Wireless Information Network Laboratory (WINLAB), Rutgers University, NJ Aug.2013 - Present

- **Screen-Camera Communication System** Leading a team to design a visible light communication system between high frame rate screen and high speed camera. Embedding intensive data into every frame by modulating the brightness of each pixel. The data is captured by the phone through the track of high rate frames. Programmed to cluster and decode the data, then match with the original ones.

Teaching Assistant, Department of Electrical and Computer Engineering, Rutgers University, NJ Aug.2013-Dec.2014

- Instructed undergraduate course *Linear Systems and Signals* (14:332:347) for Fall 2013/2014. Helped students get familiar with MATLAB programming and related tool box for time and frequency domain analysis of linear systems.
- Instructed undergraduate course *Computers for Engineers* (14:440:127) for Spring 2014. Introduced basic knowledge about MATLAB with concrete practice on matrix operation, plotting, repetition structure, function and simulink basics.

Publication

V. Nguyen, **Y. Tang**, A. Ashok, M. Gruteser, and etc., "TextureCode: Spatially Adaptive Embedding for Flicker-Free Screen-Camera Communication", in proceedings of IEEE INFOCOM, 2016.

Professional Activities

Volunteer, Open house day/Recruitment Weekend, Rutgers University, NJ
Reviewer, ACM Mobicom'15; ACM MobiSys'15, '16; IEEE IoTDI'16