YUGUANG LI

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OBJECTIVE

Any researching opportunities to help transforming the current field of networks and communication systems with special interests in innovative networking architectures and cyber security

EDUCATION

Boston University, College of Engineering Boston, MA September 2011 - May 2013
Master of Engineering in Electrical Engineering, GPA: 3.77/4.00
Master's Project: "Cloud-based Cyber Services for Smart Lighting"

Xi'an Jiaotong University Xi'an, Shaanxi, P.R. China September 2006 - July 2010
Bachelor of Engineering in Automation Engineering, GPA: 85/100; *SiYuan scholarship*
Thesis: "The Wind Turbine Failure Predictions and Diagnostic Monitoring"

WORKING EXPERIENCE

RapidSOS,LLC May 2014 - Present
Software Engineer *Boston, MA*

· Writing testings for telephony stuff with SIPp (in progress)
· Working mainly on the backend using python and Django frameworks and telephony stuff
· Participated to implement the REST APIs and QA testing for the backend with Django REST framework
· Arranged for the Asterisk telephony server behind Nginx using HTTPs
· Designed the Class-based automated message generate modules for Interactive Voice Response(IVR)
· Implemented the telephony applications on asterisk server by python and Asterisk REST APIs
· Implemented the interconnection library to interacts with the partner's APIs

The Laboratory of Networking and Information Systems June 2013 - March 2014
Research Assistant on Prof. David Starobinski's team *Boston University, Boston, MA*

· Helped to research mainly on topics of Networking and Cyber Security
· Established a lab curriculum for graduate course EC521: Cyber Security
· Designed the course contents: SQL injection, password cracking, nmap, network attacks and Snort
· Arranged for the lab environment with Kali Linux and Metasploitable2 under VMware Workstation

The Network-based Complex System Control Lab October 2010 - July 2011
Research Assistant on Prof. Dejun Mu's team *Northwestern Polytech. Univ., Xi'an, China*

· Worked mainly in mathematical modeling, algorithms design and simulations in Matlab
· Established a dynamic transmission algorithm based on feedback and buffers on the server-side
· Proposed the probability models of the E2E and SCF mechanisms
· Simulated and Verified the above transmission systems

FEATURED PROJECTS

Lab Curriculum Design for Computer Cyber Security June 2013 - September 2013
The Laboratory of Networking and Information Systems *Boston University, Boston, MA*

· Designed the lab curriculum for a graduate course: EC521 Cyber Security
· Chosen the lab environment and two VMs: Kali Linux and Metasploitable
· Tested all the designed labs and drafted the lab details
· Presented a paper according to this project at CISSE 2014, June, San Diego,USA

Cloud-based Cyber Services for Smart Lighting April 2012 - April 2013
Master's project *Boston University, Boston, MA*

· A Master graduation project for an intelligent lighting system design using Java
· Compared the existing Cloud services and came up with an optimal solution: Amazon Web Service
· Designed multithread chat server and socket communication between client and server
· Designed and implemented the front end using HTML5, CSS3 and Javascript
· Deployed the web application onto Cloud with sample database and tested all the functions

Outlier Color Identification for Search and Rescue September 2012 - December 2012
Course of Digital Imaging Processing *Boston University, Boston, MA*

· Characterized the Mathematical Model of the images as Markov Random Model with Gibbs distribution
· Designed and implemented Outlier Color Indentification algorithm based on the Markov Model
· Applied the algorithm to different kinds of sample images and improved the performance

The Embedded Audio-Video Transmission System for WLAN November 2010 - April 2011
The Laboratory of Network-based Complex System Control *Northwestern Polytech. Univ., Xi'an*

· Proposed a dynamic transmission algorithm based on feedback and buffers on the server
· Implemented above self-adaptive algorithm on the server-side
· Verified the better QoS of the improved transmission system

Packet Reachability of VANET in Bidirectional Road Scenario May 2010 - November 2010
The Laboratory of Network-based Complex System Control *Northwestern Polytech. Univ., Xi'an*

· Proposed the probability models of the E2E and SCF mechanisms
· Compared the packet reachability between E2E and SCF
· Simulated the models using Monte Carlo method in Matlab

The Wind Turbine Failure Predictions and Diagnostic Monitoring October 2009 - July 2010
Bachelor's Thesis *Xi'an Jiaotong University, Xi'an*

· Polished and Integrated the existing neural algorithms to the Wind Turbine System
· Designed Failure Prediction and Diagnostic Monitoring control panel by MFC
· Verified the prediction algorithms and system with sample databases for LAN

TEACHING EXPERIENCE

The Course EC 541 of Computer Communication Networks February 2013 - May 2013
Teaching Assistant on EC 541 *Boston University, Boston, MA*

· Helped to come up with the solutions for students' homework
· Answered some students' questions about the homework and other questions related to the course
· Graded students' homework and mid-term exams and offered helpful comments

TECHNICAL STRENGTHS

Compile Languages	Java, C
Scripting & Other Languages	Python, PHP, Javascript; HTML, CSS, XML, JSON
Operating Systems	Linux, Kail Linux, OSs with Unix kernel, Windows
Databases & Tools	Postgres, MySQL; Git, Vim, Matlab, Wireshark, Pentesting Tools
Protocols & APIs	HTTP, HTTPS, SIP, RTP; jQuery, google APIs
Servers & Cloud	Nginx, Gunicorn, Apache2, Tomcat7, Asterisk; AWS, DigitalOcean
Frameworks & Architecture	Django, Strut2, Spring, Bootstrap; REST

PUBLICATIONS

Yansu Hu, **Yuguang Li**, The QoS Research of H.264 Video Transmission in Embedded Wireless LAN, Computer Science(ISSN 1002-137X), vol.38, no.5, pp.83-85, 2011

Panguo Fan, **Yuguang Li**, et al, Packet Reachability of VANET in Bidirectional Road Scenario, 12th IEEE International Conference on Communication and Technology, Nov. 2010