YUGUANG LI

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OBJECTIVE

Any researching opportunities to help transforming the networks and communication systems with special interests in innovative networking architectures and networks 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 System Engineering, GPA: 85/100; *SiYuan scholarship*
Thesis: "The Wind Turbine Failure Prediction and Diagnostic Monitoring"

WORKING EXPERIENCE

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

· Participated in the whole design and implementation of RapidSOS(onetouch-911) communication system
· Designed and implemented the REST APIs for the backend with Django REST framework
· Designed and implemented the prototype for telephony application(VoIP)
· Designed and implemented the APIs and Libraries for geocoding and location stuff
· Maitained the telephony server and application backend server on AWS Cloud

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

· Helped mostly on Networks Security and Security Education
· Established a serials of Labs for graduate course EC521: Cyber Security
· Designed the Lab contents: SQL injection, Password cracking, Metasploit, Network attacks and Snort
· Arranged for the lab environment with two VMs: Kali Linux and Metasploitable2

The Laboratory of Network-based Complex Control Systems October 2010 - July 2011
Researcher on Prof. Dejun Mu's team *Northwestern Polytech. Univ., Xi'an, China*

· Worked mainly on mathematical modelling, algorithms design and simulations for Network-based systems
· Established a dynamic transmission algorithm based on feedback and buffers on the server-side
· Proposed the probability models of VANET with different mechanisms
· Simulated and Verified the improved transmission systems

FEATURED PROJECTS

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

· Chosen the intrinsic-security lab environment within a private Virtual Network
· Designed the progressive labs using popular pen-testing tools
· Tested all the designed labs and drafted the lab documents
· A paper according to this project was accepted by CISSE 2014, June, San Diego,USA
· Collaborated with Prof. David Starobinski

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

· Master's project for a Cloud-based intelligent lighting system using Java
· Compared the existing Cloud services and came up with an optimal solution: Amazon Web Service
· Designed multi-thread control server and socket communication between client and server
· Polished and integrated the dynamic Lighting Adaptation Algorithm on control server
· Implemented the web-based front end using JSPs embedded with HTML5, CSS3 and Javascript
· Deployed the system onto Cloud with Amazon RDS database and tested all the functionalities
· Supervised by Prof. Thomas Little

Motion Curve Detection within Wireless Sensor Networks September 2011 - December 2011
Course of Networking the Physical World *Boston University, Boston, MA*

· Utilized a Wireless Sensor Network (WSNET) system based on TinyOS motes with MTS400 sensor board
· Analyzed the sensor data packets transfer between MicaZ motes using the MIB520 Gateway
· Developed a lite Integral Algorithm to detect motion of the motes using Dual-axis Accelerometer Sensors
· Designed and implemented the GUI in Matlab for displaying and controlling the motion curve
· Supervised by Prof. Thomas Little

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

· Proposed a dynamic transmission algorithm server-side based on RTCP feedback and buffering mechanism
· Implemented the Adaptive Rate Control Algorithm on the embedded Linux-Server
· Verified the better QoS of the improved embedded transmission system within WLAN
· Collaborated with Prof. Dejun Mu

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

· Proposed a probability model for End-to-End and Store-Carry-Forward mechanism respectively
· Simulated the models using Monte Carlo method in Matlab
· Compared the packet reachability between E2E and SCF within Bidirectional Road Scenario
· Collaborated with Prof. Dejun Mu

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

· Integrated the existing Neural Networks Prediction Algorithm to the Wind Turbine Control Server
· Designed and implemented the Failure Prediction and Diagnostic Monitoring Control Panel
· Verified the Prediction Algorithm and the system with sample databases for Ethernet
· Supervised by Prof. Qingyu Yang

TEACHING EXPERIENCE

Spring 2013: Computer Communication Networks *College of Engineering, Boston University*

TECHNICAL STRENGTHS

Compile Languages	Java, C/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, Pen-testing Tools
Protocols & APIs	HTTP/HTTPS, SIP, RTP/RTCP; 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