

# YUGUANG LI

148 N.Beacon ST APTA4, Brighton, MA 02135

leeygxz@gmail.com/www.yuguangli.com

(617) · 834 · 8456

## OBJECTIVE

---

A position in the field of web or software development with special interests in using and learning all kinds of new and innovative cutting-edge techniques

## 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"*

## 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 model of the E2E and SCF mechanisms
- Simulated and Verified the above transmission systems

## 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 Identification 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 model of the E2E and SCF mechanism
- 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

## **TECHNICAL STRENGTHS**

---

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