Ruei-Min Lin

5635 San Pablo Dam Rd, El Sobrante, CA 94803

rueiminl@andrew.cmu.edu • +1 (412) 708-0781 • https://www.linkedin.com/in/rueiminl

EDUCATION

Carnegie Mellon University   **Pittsburgh, PA**

Master of Science (M.S.) in Information Networking, Dec 2015
- Emphasis in software development, network application, and system programming (GPA: 3.8 / 4.0)
- Built a scalable cloud-based query web service with Java servlet (Tomcat) as the front-end and MySQL/HBase as the back-end, utilizing big data from Twitter messages by MapReduce on Amazon Web Service (AWS)
- Designed a distributed system for programmers to code together through web browsers in a shared session of interactive Python interpreter, achieving fault tolerance by leader election in a ring with Go language
- Implemented a real-time operating system kernel with tasks scheduling, priority assignment, priority ceiling emulation, as well as context switching among tasks approaching deadlines to manage shared resource
- Implemented malloc and free in C with a dynamic storage allocator that applies segregated lists to allocate and delete blocks of memory, minimizing trade-offs between efficiency and utilization
- Designed and developed a web application for multiple users to plan travel itineraries interactively and cooperatively by exploiting AngularJS, Django, and Google Map API

National Taiwan University   **Taipei, Taiwan**

Master of Science (M.S.) in Engineering, Jun 2006
- Majored in Computer Science (GPA: 3.9 / 4.0) ; Thesis: Pitch Recognition Based on Cochlear Model

Bachelor of Science (B.S) in Engineering, Jun 2004
- Majored in Electrical Engineering (GPA: 3.5 / 4.0)

EXPERIENCE

2015 Summer

Lawrence Berkeley National Laboratory   **Berkeley, CA**

Software Development Intern at ESnet
- Built the software platform (ESnet Networking Operating System) and developed software defined production network (SDN) to facilitates worldwide academic networking research and enterprise networking needs
- Implemented MAC address translation including broadcast packet in the core network provided by ESnet, enabling multiple VPNs to function on the Ethernet layer

ASUSTeK Computer Inc.   **Taipei, Taiwan**

2013 – 2014

Senior Manager in Software Department
- Led a team to develop the most significant software product named AI Suite 3 to integrate functionality of hardware systems in a user-friendly dashboard, providing better accessibility to control utilities of ASUS product
- initiated internal trainings to Introduce new technical skill-sets such as design patterns and test-driven development to increase the efficiency of multiple projects, leading to better team performance in software quality
- Originated Digital Living Network Alliance (DLNA) project in C++ to enhance next generation product ASUS HomeCloud, building a Digital Media Server (DMS) capable of streaming and transcoding in real time

2012 – 2013

Senior Software Engineer in Software Department
- Refactored code and decoupled objects to improve the readability and maintenance of a long-term C++ project, reducing compile time significantly from half hour to less than 3 minutes
- Developed an application which is able to monitor temperature sensors and control fan speed and CPU overclocking, achieving more powerful system performance and more efficient energy saving

Academia Sinica   **Taipei, Taiwan**

2009 – 2011

Research Assistant, Institute of Information Science
- Designed an efficient and reliable transport protocol for a popular MMORPG online game with C++ to improve user experiences, reducing end to end packet delay and jitter significantly by 20% in network simulation
- Developed a novel mechanism to detect proxies on servers based on Nagle's algorithm and launched global network experiments on PlanetLab for verification and evaluation, achieving an average of 92% detection rate
- Established a mechanism to detect game-bot in online rhythm games based on the characteristics of long-term memory of humans versus monotonous robots, achieving high accuracy in identifying cheating schemes

Hon Hai (Foxconn) Precision Co., Ltd.   **Shenzhen, China**

2007 – 2009

BIOS Engineer, Software Department
- Maintained firmware integrating software and hardware technology for x86 processors from Intel and AMD with assembly language, delivering the best-selling laptops of a branded computer company

Ministry of National Defense   **Kaohsiung, Taiwan**

2006 – 2007

Corporal, Information Technology Specialist

SKILL

C++, Python, C, Java, Assembly, Shell, R, Go, SQL, HBase, JavaScript, MapReduce, Django

PUBLICATION

R. Lin , H. Ho, and K. Chen, "Bot Detection in Rhythm Games: A Physiological Approach," in *Proceedings of ACM SIGCHI ACE 2011*, Nov 2011

R. Lin , Y. Chou, and K. Chen, "Stepping Stone Detection at the Server Side," in *IEEE SCNC 2011 (in conjunction with IEEE INFOCOM 2011)*, Apr 2011