Raejoon Jung

✆ +1-650-681-7155
✉ raejoon@stanford.edu
🖰 www.stanford.edu/∼raejoon

Objective

To obtain an entry level software engineer full time position working on computer systems and infrastructure.

Education

2014 - present	**PhD, Electrical Engineering**, *Stanford University*, Stanford, CA, USA, (GPA: 3.66).
	Advisor: Professor Philip Levis (Expected: June 2021)
2012 - 2014	**MS, Electrical Engineering**, *Stanford University*, Stanford, CA, USA.
2006 - 2010	**BS, Electrical Engineering**, *Korea Advanced Institute of Science and Technology*, Daejeon, Korea, (GPA: 3.96).

Academic Experience

2013 - present — **Research Assistant**, *Stanford University*, California, USA.

- Designed a distributed decoding technique for erasure-coded storage systems. Implemented a prototype system in C++ for evaluating decoding performance.
- Designed a state-of-the-art LoRa receiver that recovers packets from collisions. Implemented a prototype using software defined radios and arduinos.
- Designed a time desynchronization algorithm for multi-hop wireless networks. Implemented a Wi-Fi prototype using Click (C++) and tested on a large scale Wi-Fi testbed. Modified Wi-Fi Linux driver to integrate the algorithm. Conducted experiments on a large scale 802.15.4 testbed using C and Contiki OS.
- Conducted research on various beamforming-based interference management methods for cellular networks. Analyzed effect of latency of channel state information on the performance of cooperative MIMO using MATLAB.

2013, 2014, 2020 — **Teaching Assistant**, *Stanford University*, California, USA.

Assisted in three courses regarding the following subjects; (1) undergraduate level wireless communication; (2) undergraduate level systems programming; (3) graduate level convex optimization. Courses involved programming projects such as an acoustic communication system in Python and system level programming to build a Linux shell and a thread pool in C/C++.

Work Experience

Summer 2019 — **Intern**, *VMware*, Bellevue, WA, USA.

Designed a daemon that integrates multiple IoT frameworks in C. Demonstrated end-to-end IoT system management using an open-source and a proprietary framework simultaneously. Patched Linux kernels with backports and self-written patches for security enhancement under Secure Boot.

Summer 2014 — **Research Intern**, *Ericsson*, San Jose, CA, USA.

Researched on distributed time desynchronization protocols for multi-hop wireless networks. Developed testbeds using software packet processors in C++ and single-board computers.

Relevant Coursework

Systems	Operating Systems, Introduction to Computer Networking, Advanced Topics in Networking
Data/Signals	Convex Optimization, Statistical Signal Processing, Machine Learning, Deep Learning

Skills

Language	Korean (First language), English (Fluent)
Technical	C/C++,Python,MATLAB,Linux,Driver development,Shell scripting,Docker,Keras,TensorFlow