

Christina Shin

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EDUCATION

University of Southern California, Los Angeles, USA

- Currently Pursuing Ph.D. in Computer Science Aug 2019 – Present
 - Interest: Mobile Network Systems, Autonomous Vehicle Systems

Ewha Womans University, Seoul, South Korea

- M.S. in Computer Science and Engineering Mar 2017 – Feb 2019
 - Major Academic Course Highlights: Algorithms, Low-Power Wireless Systems, Embedded Systems
 - Cumulative GPA: 4.23 / 4.3
- B.S. in Computer Science and Engineering Mar 2012 – Feb 2017
 - Cumulative GPA: 3.79 / 4.3
 - Major GPA: 4.09 / 4.3

RESEARCH EXPERIENCE

Networked Systems Laboratory, University of Southern California

Ph.D. Student (Advisor: *Prof. Ramesh Govindan*) Aug 2019 – Present

- Have participated in a research on 3D sensing using autonomous vehicle systems
 - Focus: 3D sensing, Mobile Systems, Autonomous Vehicle Systems

Intelligent Networked Systems Laboratory, Ewha Womans University

M.S. Student (Advisor: *Prof. HyungJune Lee*) Jan 2017 – May 2019

- Conducted a research on traffic density estimation through V2V packet probing within time-deadline (*IEEE TVT '20*)
 - Focus: Vehicular Ad-Hoc Networks, Traffic Density Estimation
- Extended two previous research works which consider route reconstruction problem using distributed UAVs, and published a paper (*IEEE TVT '19*)
 - Focus: Route Reconstruction Problems, Optimization, Heuristics, UAVs
- Led a research on dynamic route reconstruction using distributed UAV relays, and published a paper (*IEEE WCNC '18*)
 - Focus: Route Reconstruction Problem, Dynamic Recovery, UAVs
- Participated in a research on route reconstruction using multi-UAV relays, and published a paper (*IEEE GLOBECOM '17*)
 - Focus: Wireless Ad-Hoc Networks, Heuristic Algorithms, UAVs

PUBLICATIONS JOURNAL

Christina Suyong Shin, JiHo Lee, and HyungJune Lee, “Infrastructure-less Vehicle Traffic Density Estimation via Distributed Packet Probing in V2V Network,” *IEEE Transactions on Vehicular Technology*, vol. 69, no. 10, Oct 2020.

So-Yeon Park, **Christina Suyong Shin**, Dahee Jeong, and HyungJune Lee, “DroneNetX: Network Reconstruction through Connectivity Probing and Relay Deployment by Multiple UAVs in Ad-Hoc Networks,” *IEEE Transactions on Vehicular Technology*, vol. 67, no. 11, Nov 2018.

CONFERENCE

Christina Suyong Shin, So-Yeon Park, JinYi Yoon, and HyungJune Lee, “Progressive ad-hoc route reconstruction using distributed UAV relays after a large-scale failure,” *IEEE Wireless Communications and Networking Conference (WCNC)*, 2018.

So-Yeon Park, Dahee Jeong, **Christina Suyong Shin**, and HyungJune Lee, "DroneNet+: Adaptive Route Recovery Using Path Stitching of UAVs in Ad-Hoc Networks," *IEEE Global Communications Conference (GLOBECOM)*, 2017.

AWARDS & SCHOLARSHIPS

- Annenberg Fellowship, University of Southern California 2019
For outstanding Ph.D. students joining in Fall 2019
- Qualcomm Innovation Awards, Qualcomm 2017
For proposing a lightweight network hole replacement algorithm through UAV-net and leading to contributions in the fields of Wireless Ad-Hoc Network
- Silver Prize in Graduation Capstone Design, Ewha Womans University 2016
For an outstanding project that presented and implemented *SimMusic* language which plays simple musics on *Lego Mindstorms NXT*
- Dean's List, Ewha Womans University 2013, 2015, 2016
For attaining a semester GPA of at least 3.75

ADDITIONAL EXPERIENCES

Teaching Assistant in Major Courses, Ewha Womans University

- Computer Architecture (20493-02) Fall 2018
- Arduino Programming (11208-01) Spring 2018
- C Programming (38407-05) Fall 2017
- Programming Language Theory (20499-01, 20499-02) Spring 2017