Chunjong Park

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RESEARCH

Ubiquitous Computing, Human-Computer Interaction

INTERESTS

Novel sensing systems for health and interaction using computer vision, machine learning, and signal processing.

EDUCATION

University of Washington

SEP. $2017 \sim$

Ph.D., Computer Science & Engineering, (Advisor: Shwetak Patel)

University of Washington

Jun. 2020

M.S., Computer Science & Engineering, (Advisor: Shwetak Patel)

Korea Advanced Institute of Science and Technology (KAIST)

FEB. 2017

M.S., Computer Science, (Advisor: Sung-Ju Lee)

Korea Advanced Institute of Science and Technology (KAIST)

FEB. 2015

B.S., Computer Science, (Advisor: Sue Moon)

RESEARCH **EXPERIENCES**

Ubicomp Lab., University of Washington

SEATTLE, WA

SEP. $2017 \sim$

Research Assistant

Designing and building mobile health application that can be used easily and safely by ordinary people.

- Smartphone camera-based user-facing health sensing applications for rapid diagnostic test capture and interpretation, capillary refill time measurement, and corneal topography.
- Improving interpretability and reliability of deep learning models for consumer-facing health applications
- Analyze user behaviors from large scale data collected from consumer-facing health devices and applications.

REDMOND, WA Microsoft Research

Research Intern

Jun. $2020 \sim Sept. 2020$

(Manager: Ken Hinckley, Mentors: Michel Pahud, Eyal Ofek, Teddy Seyed)

Built sensor-mediated interaction techniques for seamless content sharing in multi-device, multi-user environment, using proxemics and micro-mobility.

Snap Inc. SEATTLE, WA

Research Intern (Manager: Andrés Monroy-Hernández) Jun. $2019 \sim Dec. 2019$

Built a non-textual communication application on smartphone and wearable by seamlessly recommending appropriate avatars that represent user's current context. Prototypes released in App Store (Significant Otter, BFF)

Nokia Bell Labs CAMBRIDGE, UK

Jun. $2018 \sim Sept. 2018$ Research Intern

(Manager: Fahim Kawsar, Mentors: Alberto Gil Ramos, Sourav Bhattacharya)

Built strongly labeled audio dataset and a deep learning model on IoT devices for understanding ambient contexts.

Networking & Mobile Systems Lab., KAIST

DAEJEON, KOREA

Research Assistant

Mar. $2015 \sim Jul. 2017$

Worked on exploring context-aware smartphone notification management, understanding thermal characteristics of smartphones, and exploring better use of micro spare time.

Advanced Networking Lab., KAIST

DAEJEON, KOREA

Undergraduate Researcher

Jul. $2014 \sim Mar. 2015$

Worked on improving TCP congestion control in a datacenter. Designed and implemented a module that measures latency of TCP packets with a sub-microsecond accuracy.

PUBLICATIONS

Diagnostic accuracy of an app-guided, self-administered test for influenza among individuals presenting to general practice with influenza-like illness: study protocol

Victoria Lyon, Monica Zigman Suchsland, Monique Chilver, Nigel Stocks, Barry Lutz, Philip Su, Shawna Cooper, **Chunjong Park**, Libby Rose Lavitt, Alex Mariakakis, Shwetak Patel, Chelsey Graham, Mark Rieder, Cynthia LeRouge, Matthew Thompson

BMJ Open, Nov. 2020

Augmenting Conversational Agents with Ambient Acoustic Contexts

Chunjong Park, Chulhong Min, Sourav Bhattacharya, Fahim Kawsar

ACM International Conference on Human-Computer Interaction with Mobile Devices and Services, Oct. 2020

Supporting Smartphone-Based Image Capture of Rapid Diagnostic Tests in Low-Resource Settings

Chunjong Park, Alex Mariakakis, Jane Yang, Diego Lassala, Yasamba Djiguiba, Youssouf Keita, Hawa Diarra, Beatrice Wasunna, Fatou Fall, Marème Soda Gaye, Bara Ndiaye, Shwetak Patel, Ari Johnson, Isaac Holeman *International Conference on Information and Communication Technologies and Development (ICTD*), Jun. 2020

Fire in Your Hands: Understanding Thermal Behavior of Smartphones

Soowon Kang, Hyeonwoo Choi, Soo Young Park, **Chunjong Park**, Jemin Lee, Uichin Lee, and Sung-Ju Lee *ACM Conference on Conference on Mobile Computing and Networking (MobiCom)*, Oct. 2019

"Don't Bother Me. I'm Socializing!": A Breakpoint-Based Smartphone Notification System

Chunjong Park, Junsung Lim, Juho Kim, Sung-Ju Lee, and Dongman Lee

ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW), Feb. 2017

Zaturi: We Put Together the 25th Hour for You. Create a Book for Your Baby

Bumsoo Kang, Chulhong Min, Wonjung Kim, Inseok Hwang, **Chunjong Park**, Seungchul Lee, Sung-Ju Lee, and Junehwa Song

ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW), Feb. 2017

DX: Accurate Latency-based Congestion Feedback for Datacenters

Changhyun Lee, Chunjong Park, Keon Jang, Sue Moon, and Dongsu Han

IEEE/ACM Transaction on Networking, Feb. 2017

Accurate Latency-based Congestion Feedback for Datacenters

Changhyun Lee, Chunjong Park, Keon Jang, Sue Moon, and Dongsu Han

USENIX Annual Technical Conference (ATC), Jul. 2015

PATENTS

Non-Textual Communication and User States Management Andrés Monroy-Hernández, **Chunjong Park**, and Fannie Liu U.S. Patent App. Filed, September 2020

WORK EXPERIENCES **Content N** *Lead Software Engineer*

SEOUL, KOREA OCT. 2013 \sim MAR. 2014

Designed and developed back-end systems for a mobile arcade game, *Sushi Master*, using Amazon AWS, Node.js, MongoDB, and Redis. Developed data analysis tool and web interface for game statistics.

Company 100, Inc.

SEOUL, KOREA

Software Engineer

Mar. $2012 \sim Oct. 2013$

Designed and developed back-end systems for a mobile action-RPG game, *MetalBreaker*, using Amazon AWS, Node.js, MongoDB, and Redis. Developed data analysis tool and web interface for game statistics.

SQISoft, Inc. Seoul, Korea

Software Engineer

DEC. $2010 \sim MAR.\ 2012$

Developed billing system for heat & electricity, and face recognition-based immigration clearance system deployed at the Incheon Int'l Airport.

Nexon Corp.

SEOUL, KOREA

Intern

SEP. $2010 \sim DEC.\ 2010$

Developed an in-game chat module in *BubbleFighter* online game.

TEACHING EXPERIENCE **Teaching Assistant**

University of Washington

Introduction to Computer Communication Networks

WINTER 2018, FALL 2017

Teaching Assistant KAIST

Introduction to Computer Networks SPRING 2016, SPRING 2015

Teaching Assistant KAIST FALL 2015

Networking for Smartphone Systems and IoT

PROGRAMMING • Language: C, C++, Java, Javascript/Node.js, Python, Objective-C, Swift

SKILLS

• OS/Platform: Linux/Ubuntu, Android, iOS/WatchOS

• Hardware: Arduino

• Framework/Library/Version Control: OpenCV, scikit-learn, PyTorch, Git

ACADEMIC SERVICES

IMWUT 2018, 2019, 2020, CHI 2019, 2020, 2021 Reviewer

MobileHCI 2019, ISWC 2020, IEEE Pervasive Comp. 2020

Student Volunteer Ubicomp 2019, 2020

Microsoft W+D Summer 2020 Hackathon Winners **AWARDS**

MICROSOFT, AUG. 2020 Outstanding Teaching Assistant Award KAIST, MAR. 2017 Outstanding M.S. Thesis Award KAIST, FEB. 2017 Outstanding Teaching Assistant Award KAIST, MAR. 2016 The 9th Open Source SW World Challenge, Silver Medal KOSSA, DEC. 2015