

# Chunjong Park

Software Engineer, Google DeepMind

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<https://cjpark.xyz>

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RESEARCH INTERESTS     Multimodal LLM, AI for Health

EDUCATION     **University of Washington**     JUN. 2022  
Ph.D., 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*)

WORK / RESEARCH EXPERIENCES     **Google DeepMind**     SEATTLE, WA  
*Software Engineer*     MAY 2024 ~  
Building multimodal LLMs for health. Featured on Google Research Blog [1, 2]

**Google Research**     SEATTLE, WA  
*Software Engineer*     AUG. 2022 ~ MAY 2024  
Building foundation models for health and well-being.

**UbiComp Lab., University of Washington**     SEATTLE, WA  
*Research Assistant*     SEP. 2017 ~ JUN. 2022  
Designing and building mobile health applications using machine learning and computer vision.

**Microsoft Research**     REDMOND, WA  
*Research Intern*     JUN. 2021 ~ SEPT. 2021  
(Manager: Tiffany Kuo, Mentors: Daniel McDuff, Miah Wander, Becky Mieloszyk)  
Built blood pressure estimation neural networks using photoplethysmography (PPG) signal from smartphone.

**Microsoft Research**     REDMOND, WA  
*Research Intern*     JUN. 2020 ~ 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*     JUN. 2019 ~ DEC. 2019  
(Manager: Andrés Monroy-Hernández)  
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  
*Research Intern*     JUN. 2018 ~ SEPT. 2018  
(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 ~ JUL. 2017  
Worked on exploring context-aware smartphone notification management, understanding thermal characteristics of smartphones, and exploring better use of micro spare time.

## PUBLICATIONS

Advancing Conversational Diagnostic AI with Multimodal Reasoning [Paper, Google Research Blog]

Khaled Saab\*, Jan Freyberg\*, **Chunjong Park\***, Tim Strother, Yong Cheng, Wei-Hung Weng, David G.T. Barrett, David Stutz, Nenad Tomasev, Anil Palepu, Valentin Liévin, Yash Sharma, Abdullah Ahmed, Elahe Vedadi, Kimberly Kanada, Cian Hughes, Yun Liu, Geoff Brown, Yang Gao, Sean Li, S. Sara Mahdavi, James Manyika, Katherine Chou, Yossi Matias, Avinatan Hassidim, Dale R. Webster, Pushmeet Kohli, S.M. Ali Eslami, Joëlle Barral, Adam Rodman, Vivek Natarajan, Mike Schaekermann, Tao Tu, Alan Karthikesalingam†, and Ryutaro Tanno†

*arxiv*, May. 2025

Capabilities of Gemini Models in Medicine [Paper, Google Research Blog]

Khaled Saab, Tao Tu, Wei-Hung Weng, Ryutaro Tanno, David Stutz, Ellery Wulczyn, Fan Zhang, Tim Strother, **Chunjong Park**, Elahe Vedadi, Juanma Zambrano Chaves, Szu-Yeu Hu, Mike Schaekermann, Aishwarya Kamath, Yong Cheng, David G.T. Barrett, Cathy Cheung, Basil Mustafa, Anil Palepu, Daniel McDuff, Le Hou, Tomer Golany, Luyang Liu, Jean-baptiste Alayrac, Neil Houlsby, Nenad Tomasev, Jan Freyberg, Charles Lau, Jonas Kemp, Jeremy Lai, Shekoofeh Azizi, Kimberly Kanada, SiWai Man, Kavita Kulkarni, Ruoxi Sun, Siamak Shakeri, Luheng He, Ben Caine, Albert Webson, Natasha Latysheva, Melvin Johnson, Philip Mansfield, Jian Lu, Ehud Rivlin, Jesper Anderson, Bradley Green, Renee Wong, Jonathan Krause, Jonathon Shlens, Ewa Dominowska, S. M. Ali Eslami, Katherine Chou, Claire Cui, Oriol Vinyals, Koray Kavukcuoglu, James Manyika, Jeff Dean, Demis Hassabis, Yossi Matias, Dale Webster, Joelle Barral, Greg Corrado, Christopher Semturs, S. Sara Mahdavi, Juraj Gottweis, Alan Karthikesalingam, Vivek Natarajan

*arxiv*, Apr. 2024

A Bag of Tricks for Few-Shot Class-Incremental Learning

Shuvendu Roy, **Chunjong Park**, Aldi Fahrezi, Ali Etemad

*Transactions on Machine Learning Research (TMLR)*, Sept. 2024

CAPAPP: Smartphone-Based Capillary Refill Index Assessment in Healthy Children

Jonathan Strutt, Girish Narayanswamy, **Chunjong Park**, Devesh Sarda, Sixuan Wu, Matthew Thompson, Lauren Harvey, Rachel Hedstrom, Amy Kodet, Shwetak Patel, Alex Mariakakis

*Frontiers in Biomedical Devices*, Apr. 2023

Reliable and Trustworthy Machine Learning for Health Using Dataset Shift Detection

**Chunjong Park**, Anas Awadalla, Tadayoshi Kohno, Shwetak Patel

*Conference on Neural Information Processing Systems (NeurIPS)*, Dec. 2021

Air Constellations: In-Air Device Formations for Cross-Device Interaction via Multiple Spatially-Aware Armatures

Nicolai Marquardt, Nathalie Henry Riche, Christian Holz, Hugo Romat, Michel Pahud, Frederik Brudy, David Ledo, **Chunjong Park**, Molly Jane Nicholas, Teddy Seyed, Eyal Ofek, Bongshin Lee, William A. S. Buxton, and Ken Hinckley

*ACM Symposium on User Interface Software and Technology (UIST)*, Oct. 2021

Significant Otter: Understanding the Role of Biosignals in Communication

Fannie Liu, **Chunjong Park**, Yu Jiang Tham, Tsung-Yu Tsai, Laura Dabbish, Geoff Kaufman, Andrés Monroy-Hernández

*ACM Conference on Human Factors in Computing Systems (CHI)*, May. 2021

RDTCheck: A Smartphone App for Monitoring Rapid Diagnostic Test Administration

Devesh Sarda, **Chunjong Park**, Hung Ngo, Alex Mariakakis, Shwetak Patel

*ACM Conference on Human Factors in Computing Systems (CHI) Late-Breaking Work*, May. 2021

Online Mobile App Usage as an Indicator of Sleep Behavior and Job Performance

**Chunjong Park**, Morelle Arian, Xin Liu, Leon Sasson, Jeffrey Kahn, Shwetak Patel, Alex Mariakakis, Tim Althoff

*The Web Conference (WWW)*, Apr. 2021

The Design and Evaluation of a Mobile System for Rapid Diagnostic Test Interpretation

**Chunjong Park**, Hung Ngo, Libby Rose Lavitt, Vincent Karuri, Shiven Bhatt, Peter Lubell-Doughtie, Anuraj H. Shankar, Leonard Ndwiga, Victor Osofi, Juliana K. Wambua, Philip Bejon, Lynette Isabella Ochola-Oyier, Monique Chilver, Nigel Stocks, Victoria Lyon, Barry R. Lutz, Matthew Thompson, Alex Mariakakis, Shwetak Patel

*Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT)*, Mar. 2021

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 (Mobile-HCI)*, 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

Tilt-responsive techniques for sharing content

Kenneth P Hinckley, Michel Pahud, Nathalie M Riche, Molly Nicholas, **Chunjong Park**, Nicolai Marquardt  
U.S. Patent App. January 2023

Non-Textual Communication and User States Management

Andrés Monroy-Hernández, **Chunjong Park**, and Fannie Liu  
U.S. Patent App. March 2021

#### TEACHING EXPERIENCE

Teaching Assistant

**Introduction to Computer Communication Networks**

University of Washington  
WINTER 2018, FALL 2017

Teaching Assistant

**Introduction to Computer Networks**

KAIST  
SPRING 2016, SPRING 2015

Teaching Assistant

**Networking for Smartphone Systems and IoT**

KAIST  
FALL 2015

#### PROGRAMMING SKILLS

- **Language:** C, C++, Java, Javascript/Node.js, Python, Objective-C, Swift
- **OS/Platform:** Linux/Ubuntu, Android, iOS/WatchOS
- **Hardware:** Arduino
- **Framework/Library/Version Control:** OpenCV, PyTorch, TensorFlow, scikit-learn, Git

#### ACADEMIC SERVICES

Reviewer

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

MobileHCI 2019, ISWC 2020, IEEE Pervasive Comp. 2020  
UbiComp 2019, 2020

Student Volunteer

AWARDS

Microsoft W+D Summer 2020 Hackathon Winners

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 9<sup>th</sup> Open Source SW World Challenge, Silver Medal

KOSSA, DEC. 2015