Minsuk Chang

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I am a research scientist (technical leader) at NAVER AI Lab, where I explore novel computational interaction techniques powered by AI technologies. I'm also a technical leader at NAVER Clova, where I lead a team of engineers for building and evaluating AI powered systems with users in the loop.

My current research interests are 1) modeling conversational interactions, 2) making massive scale language models usable and useful, and 3) simulation-based models of users and interfaces.

CURRENT POSITION

NAVER — Seongnam, South Korea
Research Scientist, NAVER AI Lab — Sept, 2020 – Present
Technical Leader (HCI) — April, 2021 – Present
Technical Leader, Computational Interaction, NAVER Clova — Dec, 2020 – Present

EDUCATION

Korea Advanced Institute of Science and Technology — Daejeon, South Korea
PhD in Computer Science, Advisor: Juho Kim — 2014-2021
Thesis Title: Mining Sequential Knowledge for Interaction Design

Rutgers, The State University of New Jersey — New Brunswick, NJ, USA
MSc in Statistics — 2012-2014

KAIST Business School, Graduate School of Finance — Seoul, South Korea
MSc in Finance with specialization in Financial Engineering, Advisor: Jangkoo Kang — 2009-2011
Thesis Title: An Empirical Study on the Existence of Momentum Profits in Asian Stock Markets - 2011 Best Thesis Award

Simon Graduate School of Business, University of Rochester — Rochester, NY, USA
MSc in Finance - Dual Degree Program with KAIST Business School — 2010

Korea Advanced Institute of Science and Technology — Daejeon, South Korea
BSc in Computer Science — 2003-2008

PREVIOUS EXPERIENCES

Microsoft Research + AI — Redmond, WA, USA
Research Intern, Information and Data Sciences Group — June – Sept, 2019
- Investigating techniques for recovering from conversational interaction failures
- Designing and building dialogue state managers to support conversational interfaces for exploratory information retrieval tasks

Autodesk Research — Toronto, ON, Canada
User Interface Research Intern, User Interface Group — Nov, 2018 – Apr, 2019
- Investigating techniques for modeling user demonstrations to capture semantic subgoals
- Building data-driven interfaces by utilizing different streams of user interaction trace

Adobe Research — Seattle, WA, USA
Summer PhD Intern, Creative Intelligence Lab — Jun – Sept, 2018
- Building novel conversational interaction techniques for video interfaces
- Understanding and designing voice user interactions for learning with how-to videos

Costal Management LLC New York, NY, USA
Quant Research, Props Trading 2012 – 2014
- Researching, modeling and developing alpha generation strategies for arbitrage trade (US Equity)
- Researching trading signals in statistical arbitrage and index arbitrage models, high-mid frequency models.

SELECTED PUBLICATIONS

Sungdong Kim, **Minsuk Chang**, and Sang-Woo Lee, *NeuralWOZ: Learning to Collect Task-Oriented Dialogue via Model-Based Simulation*, In ACL 2021 (oral) (to appear).

Minsuk Chang, Mina Huh, and Juho Kim, *RubySlippers: Supporting Content-based Voice Navigation for How-to Videos*, In Proceedings of the SIGCHI Conference on Human Factors in Computing Systems, 2021.

Seungwon Do, **Minsuk Chang**, and Byungjoo Lee, *A Simulation Model of Intermittently Controlled Point-and-Click Behavior*, In Proceedings of the SIGCHI Conference on Human Factors in Computing Systems, 2021. **Honorable Mention**

Minsuk Chang, Ben Lafreniere, Juho Kim, George Fitzmaurice, Tovi Grossman, *"Workflow Graphs: A Computational Model of Collective Task Strategies for 3D Design Software", Proceedings of the 45th Graphics Interface Conference on Proceedings of Graphics Interface 2020.* Canadian Human-Computer Communications Society, 2020.

Minsuk Chang, Anh Truong, Oliver Wang, Maneesh Agrawala, Juho Kim. *"How to Design Voice Based Navigation for How-To Videos"* Proceedings of the SIGCHI Conference on Human Factors in Computing Systems, 2019.

Minsuk Chang, Leonore V. Guillain, Hyeungshik Jung, Vivian M. Hare, Juho Kim, and Maneesh Agrawala. *"RecipeScape: An Interactive Tool for Analyzing Cooking Instructions at Scale"* Proceedings of the SIGCHI Conference on Human Factors in Computing Systems, 2018

SERVICES

Organizing Committe
- SIGCHI Operations Committee (2020-present)
- UIST 2021-2022 Publicity Co-Chair
- CHI 2021-2022 Video Capture Co-Chair
- ISS 2019 Video Chair

Program Committe
- HCOMP 2021
- CHI 2022
- UIST 2021
- CSCW 2021
- Viz Meets AI 2021
- WWW 2020, 2021
- GI 2020
- CHI 2019 LBW, 2021 SRC

Reviewer
- CHI 2017, 2018, 2019, 2020, 2020 LBW, 2021, 2021 LBW
- CSCW 2018, 2019, 2020 (Outstanding Review)
- UIST 2017, 2018, 2020
- MobileHCI 2019
- IMWUT 2020 (Outstanding Review)

Student Volunteer
- CHI 2017
- UIST 2017, 20180
- ICML 2020