

# Minsuk Chang

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## Research Interests

Developing computational techniques for understanding the semantic compositions of user tasks in large scale behavioral data.

## Education

- Korea Advanced Institute of Science and Technology (KAIST)**, Daejeon, South Korea 2014 Mar –  
PhD in Computer Science, Advisor: Juho Kim
- Rutgers, The State University of New Jersey**, New Brunswick, NJ, USA 2012 - 2014  
MSc in Statistics
- KAIST Business School, Graduate School of Finance**, Seoul, South Korea 2009 - 2011  
MSc in Finance with specialization in Financial Engineering, Advisor: Jangkoo Kang  
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 2010  
MSc in Finance - Dual Degree Program with KAIST Business School
- Korea Advanced Institute of Science and Technology (KAIST)**, Daejeon, South Korea 2003 - 2008  
BSc in Computer Science

## Selected Publications

**Under Review.** "Workflow Graphs: A Computational Model of Collective Task Strategies for 3D Design Software"

**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

## Employment

- Microsoft AI + Research**, Redmond, WA, USA 2019 June - Sept  
Research Intern, Information and Data Sciences Group  
- 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 2018 Nov – 2019 Apr  
User Interface Research Intern, User Interface Group  
- 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 2018 Jun - Sept  
Summer PhD Intern, Creative Intelligence Lab  
- Building novel conversational interaction techniques for video interfaces.  
- Understanding and designing voice user interactions for learning with how-to videos.

**Coastal Management LLC**, New York, NY, USA 2012 - 2013  
Primary Role: Quant Research  
- 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.

**KAIST Artificial Intelligence and Pattern Recognition Lab**, Daejeon, South Korea 2008  
Undergraduate Research Intern - Advisor: Professor Jin-Hyung Kim  
Topics in Pattern Recognition for Motion Pictures (Live Video Stream)  
Designed and implemented a real-time program that reads the video input of a canoe race and outputs race result.  
Project sponsored by the Korea Canoe Federation.

**KAIST Artificial Intelligence and Pattern Recognition Lab**, Daejeon, South Korea 2007  
Undergraduate Research Intern - Advisor: Professor Kee-Eung Kim  
Topics in Multiple View Geometry in Computer Vision, Pattern Recognition  
Designed and implemented algorithms that recognizes features points in images and detects specific objects in multiple images.

## Teaching

**Korea Advanced Institute of Science and Technology (KAIST)**, Daejeon, South Korea 2015 - 2018  
Head Teaching Assistant  
- CS101 Introduction to Programming

**Rutgers, The State University of New Jersey**, New Brunswick, NJ, USA 2012 - 2012  
Teaching Assistant, Financial Statistics and Risk Management Program  
- FSRM588 Financial Data Mining  
- FSRM587 Advanced Simulations Methods for Finance

## Academic Services

**Organizing Committee**  
ISS 2019 Video Chair

**Program Committee**  
GI 2020  
WWW 2020  
CHI 2019 LBW

**Reviewer**  
CHI 2017, 2018, 2019, 2020, 2020 LBW  
CSCW 2018, 2019, 2020 (Outstanding Review Award)  
UIST 2017, 2018  
MobileHCI 2019

**Student Volunteer**  
CHI 2017  
UIST 2017, 2018