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

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

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
SIGCHI Operations Committee
CHI 2021 Video Co-Chair
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