John Joon Young Chung

POSITION & CONTACT

Research Scientist @ Midjourney
Email: jchung@midjourney.com
Website: http://johnr0.github.io

RESEARCH INTERESTS

Human-Computer Interaction (HCI)+AI/ML, particularly, **AI-powered Creativity Support Tools for art-making and storytelling.**

PREVIOUS EXPERIENCE

SpaceCraft — Los Angeles, CA
Research Engineer — FEB. 2023 – AUG. 2023

Microsoft Research — Redmond, WA
Research Intern — MAY. 2022 – AUG. 2022
Mentor: Saleema Amershi and Ece Kamar

Naver AI Lab — Seongnam, Korea
Research Intern — MAY. 2021 – SEP. 2021
Mentor: Minsuk Chang

Adobe Research — Seattle, WA
Research Intern at Creative Intelligence Lab — MAY. 2020 – AUG. 2020
Mentor: Rubaiat Habib

Kixlab, KAIST — Daejeon, Korea
Full-time Researcher — AP. 2017 – JUL. 2018
Mentor: Juho Kim

EDUCATION

University of Michigan — Ann Arbor, MI
Ph.D. in Computer Science and Engineering — SEP. 2018 – JAN. 2023
Advisor: Eytan Adar, Ph.D.

Seoul National University (SNU) — Seoul, Korea
B.S. in Electrical and Computer Engineering - Summa Cum Laude. — MAR. 2011 – FEB. 2017
Ranked 3rd place from the top among 174 students in own dept. — GPA: 4.12/4.3

HONORS AND AWARDS

2019 UTC Outstanding Student of the Year Award	2020
Honorable Mention Award ACM CSCW 2019	2019
CSE fellowship (for 1 year) University of Michigan	2018
Best Paper Runner-Up Award HCOMP GroupSight 2017	2017
Graduation Award Alumni Association of College of Engineering, SNU	2017
2nd place and a popularity award Information Science and Culture Project Exhibition Awards, SNU	2016
Special Award Anyang Super Rookie Festival	2016
Encouragement Award Writing in Science & Technology Research Competition, SNU	2015
National Scholarship for Science and Engineering (4 years)	2011 - 2017

PUBLICATIONS

Published

1. **Authors' Values and Attitudes Towards AI-bridged Scalable Personalization of Creative Language Arts**
   Taewook Kim, Hyomin Han, Eytan Adar, Matthew Kay, **John Joon Young Chung**. In *Proceedings of CHI 2024: ACM Conference on Human Factors in Computing Systems* (acceptance rate: 26.3%).

2. **A Design Space for Intelligent and Interactive Writing Assistants**
   Mina Lee, Katy Ilonka Gero, **John Joon Young Chung**, Simon Buckingham Shum, Vipul Raheja, Hua Shen, Subhashini Venugopalan, Thiemo Wambsganss, David Zhou, Emad A. Alghamdi, Tal August, Avinash Bhat, Madiha Zahrah Choksi, Senjuti Dutta, Jin L.C. Guo, Md Naimul Hoque, Yewon Kim, Simon Knight, Seyed Parsa Neshaei, Antonette Shibani, Disha Shrivastava, Lila Shroff, Agnia Sergeyuk, Jessi Stark, Sarah Sterman, Sitong Wang, Antoine Bosselut, Daniel Buschek, Joseph Chee

Chang, Sherol Chen, Max Kreminski, Joonsuk Park, Roy Pea, Eugenia Ha Rim Rho, Zejiang Shen, Pao Siangliulue. In *Proceedings of CHI 2024: ACM Conference on Human Factors in Computing Systems* (acceptance rate: 26.3%).

3. **CreativeConnect: Supporting Reference Recombination for Graphic Design Ideation with Generative AI**
DaEun Choi, Sumin Hong, Jeongeon Park, **John Joon Young Chung**, Juho Kim. In *Proceedings of CHI 2024: ACM Conference on Human Factors in Computing Systems* (acceptance rate: 26.3%).

4. **Find the Bot!: Gamifying Facial Emotion Recognition for Both Human Training and Machine Learning Data Collection**
Yeonsun Yang, Ahyeon Shin, Nayoung Kim, Huidam Woo, **John Joon Young Chung**, Jean Y. Song. In *Proceedings of CHI 2024: ACM Conference on Human Factors in Computing Systems* (acceptance rate: 26.3%).

5. **PromptPaint: Steering Text-to-Image Generation Through Paint Medium-like Interactions**
John Joon Young Chung, Eytan Adar. In *Proceeding of UIST 2023: The ACM Symposium on User Interface Software and Technology* (acceptance rate: 25.1%).

6. **Neglected Free Lunch – Learning Image Classifiers Using Annotation Byproducts**
Dongyoon Han, Junsuk Choe, Seonghyeok Chun, **John Joon Young Chung**, Minsuk Chang, Sangdoo Yun, Jean Y. Song, Seong Joon Oh. In *International Conference on Computer Vision - ICCV 2023* (acceptance rate: 26.2%).

7. **Increasing Diversity While Maintaining Accuracy: Text Data Generation with Large Language Models and Human Interventions**
John Joon Young Chung, Ece Kamar, Saleema Amershi. In *the 61st Annual Meeting of the Association for Computational Linguistics - ACL 2023* (acceptance rate: 22%).

8. **Artinter: AI-powered Boundary Objects for Commissioning Visual Arts**
John Joon Young Chung, Eytan Adar. In *Proceedings of DIS 2023: ACM Conference on Designing Interactive Systems* (acceptance rate: 24%).

9. **Artist Support Networks: Implications for Future Creativity Support Tools**
John Joon Young Chung, Shiqing He, Eytan Adar. In *Proceedings of DIS 2022: ACM Conference on Designing Interactive Systems* (acceptance rate: 21.5%).

10. **TaleBrush: Sketching Stories with Generative Pretrained Language Models**
John Joon Young Chung, Wooseok Kim, Kang Min Yoo, Hwaran Lee, Eytan Adar, and Minsuk Chang. In *Proceedings of CHI 2022: ACM Conference on Human Factors in Computing Systems* (Accepted with minor revision, acceptance rate: 12.5%).

11. **Promptiverse: Scalable Generation of Scaffolding Prompts through Human-AI Knowledge Graph Annotation**
Yoonjoo Lee, **John Joon Young Chung**, Taesoo Kim, Jean Y. Song, Juho Kim. In *Proceedings of CHI 2022: ACM Conference on Human Factors in Computing Systems* (Accepted with minor revision, acceptance rate: 12.5%).

12. **FlatMagic: Improving Webcomic Flat Colorization through AI-driven Design for Professionals**
Chuan Yan, **John Joon Young Chung**, Kiheon Yoon, Yotam Gingold, Eytan Adar, Sungsoo Ray Hong. In *Proceedings of CHI 2022: ACM Conference on Human Factors in Computing Systems* (Accepted with minor revision, acceptance rate: 12.5%).

13. **PuzzleMe: Leveraging Peer Assessment for In-Class Programming Exercises**
April Wang, Yan Chen, **John Joon Young Chung**, Christopher Brooks, Steve Oney. In *Proceedings of the ACM on Human-Computer Interaction - CSCW 2021*.

14. **The Intersection of Users, Roles, Interactions, and Technologies in Creativity Support Tools**
John Joon Young Chung, Shiqing He, Eytan Adar. In *Proceedings of DIS 2021: ACM Conference on Designing Interactive Systems* (acceptance rate: 27.7%).

15. **Beyond Show of Hands: Engaging Viewers via Expressive and Scalable Visual Communication in Live Streaming**
John Joon Young Chung, Hijung Valentina Shin, Haijun Xia, Li-Yi Wei, and Rubaiat Habib Kazi.

In *Proceedings of CHI 2021: ACM Conference on Human Factors in Computing Systems* (acceptance rate: 26.3%).

16. **Personalizing Ambience and Illusionary Presence: How People Use "Study with Me" Videos to Create Effective Studying Environments**
Yoonjoo Lee, **John Joon Young Chung**, Jean Y. Song, Minsuk Chang, Juho Kim. In *Proceedings of CHI 2021: ACM Conference on Human Factors in Computing Systems* (acceptance rate: 26.3%).

17. **C-Reference: Improving 2D to 3D Object Pose Estimation Accuracy via Crowdsourced Joint Object Estimation**
Jean Y. Song, **John Joon Young Chung**, David F. Fouhey, and Walter S. Lasecki. In *Proceedings of the ACM on Human-Computer Interaction - CSCW2020*.

18. **Efficient Elicitation Approaches to Estimate Collective Crowd Answers**
John Joon Young Chung, Jean Y. Song, Sindhu Kutty, Sungsoo Hong, Juho Kim, and Walter S. Lasecki. In *Proceedings of the ACM on Human-Computer Interaction - CSCW2019* (acceptance rate: 31%).
Honorable Mention Award (top 5%)

Arxiv preprint

1. **viz2viz: Prompt-driven Stylized Visualization Generation using a Diffusion Model**
Jiaqi Wu, **John Joon Young Chung**, Eytan Adar.

Doctoral Symposium

1. **Artistic User Expressions in AI-powered Creativity Support Tools**
John Joon Young Chung. In *Adjunct Publication of UIST 2022: ACM Symposium on User Interface Software and Technology*.

Extended Abstracts: Posters, Workshops, and Demos

1. **DeckFlow: A Card Game Interface for Exploring Generative Model Flows**
Gregory Thomas Croisdale, **John Joon Young Chung**, Emily Huang, Gage Birchmeier, Xu Wang, Anhong Guo. In *Adjunct Proceedings of the 36th Annual ACM Symposium on User Interface Software and Technology* (Demo).

2. **TaleBrush: Visual Sketching of Story Generation with Pretrained Language Models**
John Joon Young Chung, Wooseok Kim, Kang Min Yoo, Hwaran Lee, Eytan, Adar, and Minsuk Chang. In *Interactivity of CHI 2022: ACM Conference on Human Factors in Computing Systems* (Demo).

3. **Gestural Inputs as Control Interaction for Generative Human-AI Co-Creation**
John Joon Young Chung, Minsuk Chang, and Eytan Adar. In *3rd Workshop on Human-AI Co-Creation with Generative Models at IUI 2022* (Workshop).

4. **Towards Instantaneous Recovery From Autonomous System Failures via Predictive Crowdsourcing**
John Joon Young Chung, Fuhu Xiao, Nikola Banovic, and Walter S. Lasecki. In *Adjunct Publication of UIST 2019: ACM Symposium on User Interface Software and Technology* (Poster).

5. **Accident Prevention with Predictive Instantaneous Crowdsourcing**
John Joon Young Chung, Fuhu Xiao, Nicholas Recker, Kammeran Barnes, Nikola Banovic, and Walter S. Lasecki. *CHI 2019 Workshop on "Looking into the Future: Weaving the Threads of Vehicle Automation".* (Workshop).

6. **Exprgram: A Language Learning Interface for Mastering Pragmatic Competence**
Kyung Je Jo, **John Joon Young Chung**, and Juho Kim. In *Extended Abstracts of CHI 2018: ACM Conference on Human Factors in Computing Systems.* (Poster).

7. **Collaborative Crowdsourcing Between Experts and Crowds for Chronological Ordering of Narrative Events**
John Joon Young Chung, Joseph Jay Williams, and Juho Kim. *HCI Korea 2018.* (Poster).

8. **Exprgram: A Video-based Language Learning Interface Powered by Learnersourced Video Annotations**
   Kyung Je Jo, **John Joon Young Chung**, and Juho Kim. *HCOMP 2017 GroupSight.* (Workshop).
   Best Paper Runner-Up Award

Magazine Articles

1. **Designing AI-powered Art-making Tools**
   John Joon Young Chung. In XRDS: Crossroads, The ACM Magazine for Students, Summer, 2023

2. **문학과 인공지능 - 작가와 독자 간 매개로서의 역할에 대한 기대 (Literature and AI - Expecting Roles of Bridging Writers and Readers)**
   John Joon Young Chung, Taewook Kim. In 시인수첩 (계간): 여름호 2023년 (The Poet's Notebook (A Quarterly Journal): Summer, 2023).

INVITED TALKS		
AI-powered Novel Interactions for Creative Writing Gen AI Seoul 2024		FEB., 2024
AI-powered Novel Interactions and Media for Creative Writing Fast Campus Gen Con: Super Human Powered by AI		JAN., 2024
AI-powered Novel Creative Writing Interactions and Media Kyungil University		NOV., 2023
AI-powered Novel Interactions and Media for Creative Writing KAIST CS492G Human-AI Interaction		NOV., 2023
LLM-powered Novel Writing Interactions and Media Penn State University IST597-001 Intelligent and Interactive Writing		OCT., 2023
TaleBrush: Sketching Stories with Generative Pretrained Language Models SNU AI773 Special Topics in Artificial Intelligence - Deep Learning and Real-world Applications		JUN., 2022
Artistic User Expressions in AI-powered Creativity Support Tools UNIST CSE333 Intro to HCI		JUN., 2022
TaleBrush: Sketching Stories with Generative Pretrained Language Models KAIST AI599 Special Topics in Machine Learning : Deep Learning and Real-world Applications		JUN., 2022
AI-powered Creativity Support Tools for Art-making KAIST CS374 Intro to HCI		JUN., 2021

PRESS COVERAGE		
Summer 2022 aiXdesign Asian POV (Asian Point of View) aiXdesign		DEC., 2022
作家と**AI**が小を共作できるツル主人公の化する運勢を"手書きグラフ"で操作 **AI**が物語文を作成 **(A tool that allows writers and AI to co-create novels. Manipulate the changing fortunes of the protagonist with "handwritten graphs", and AI creates narrative sentences.)** ITmedia NEWS		JUN., 2022
UM professor combines human, artificial intelligence to make autonomous vehicles safer Michigan Radio		MAR., 2019

TEACHING EXPERIENCE		
Teaching Assistant		
Human-AI Interaction and Systems (UMich EECS598-003 with Anhong Guo)		Winter 2022
Human-Computer Interaction (UMich EECS598-002 with Nikola Banovic)		Fall 2020

ACADEMIC SERVICES

Organizing Committee
The Third Workshop on Intelligent and Interactive Writing Assistants at CHI2024 Organizer
ACM C&C'23-24 Registration Chair
The Second Workshop on Intelligent and Interactive Writing Assistants at CHI2023 Organizer
ACM UIST'22 Program Technology Chair
The First Workshop on Intelligent and Interactive Writing Assistants at ACL2022 Organizer
SIGCHI Korea Local Chapter'18 Local Co-chair

Reviewer
ACM CHI'20-24 (Outstanding Review × 4)
ACM CHI LBW'20-23
ACM UIST'20-23 (Outstanding Review × 1)
ACM CSCW'18, 20-24
ACM DIS'21-24
ACM IUI'22-24 (Outstanding Review × 4)
ACM Creativity&Cognition'21-22, 24 (Outstanding Review × 1)

ACM IMWUT'22
ACM MobileHCI'20
IEEE VIS'23 (Outstanding Review $\times$ 1)
IEEE VL/HCC'21 (Outstanding Review $\times$ 1)
ACM WebConf'20

Student Volunteer
ACM CSCW'20
ACM DIS'21-22
ACM IUI'22

Music	**Hothead** Single — Liberalia (Band)	2022
	영원한 봄 **(Eternal Spring)** Full length — Solo project	2022
	Crave Single — Liberalia (Band)	2018
	Reign Over Single — Liberalia (Band)	2016