John Joon Young Chung

POSITION & CONTACT	Research Scientist @ Midjourney Storytelling Lab *Email:* jchung@midjourney.com *Website:* https://johnr0.github.io
RESEARCH INTERESTS	Human-Computer Interaction (HCI)+AI/ML, particularly, **AI-powered Creativity Support Tools for art-making and storytelling.**

EXPERIENCES

Midjourney Research Scientist	San Francisco, CA SEP. 2023 –
SpaceCraft Research Engineer	Los Angeles, CA FEB. 2023 – AUG. 2023
Microsoft Research Research Intern Mentor: Saleema Amershi and Ece Kamar	Redmond, WA MAY. 2022 – AUG. 2022
Naver AI Lab Research Intern Mentor: Minsuk Chang	Seongnam, Korea MAY. 2021 – SEP. 2021
Adobe Research Research Intern at Creative Intelligence Lab Mentor: Rubaiat Habib	Seattle, WA MAY. 2020 – AUG. 2020
Kixlab, KAIST Full-time Researcher Mentor: Juho Kim	Daejeon, Korea AP. 2017 – JUL. 2018

EDUCATION

University of Michigan Ph.D. in Computer Science and Engineering *Advisor*: Eytan Adar, Ph.D.	Ann Arbor, MI SEP. 2018 – JAN. 2023
Seoul National University (SNU) B.S. in Electrical and Computer Engineering - Summa Cum Laude. Ranked 3rd place from the top among 174 students in own dept.	Seoul, Korea MAR. 2011 – FEB. 2017 GPA: 4.12/4.3

HONORS AND AWARDS

Honorable Mention Award ACM C&C 2025	2025
Honorable Mention Award ACM CHI 2024	2024
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

PRODUCTS

Patchwork @Midjourney	2024-

PUBLICATIONS

Published

1. **Modifying Large Language Model Post-Training for Diverse Creative Writing**
   John Joon Young Chung, Vishakh Padmakumar, Melissa Roemmele, Yuqian Sun, Max Kreminski.
   In *Proceedings of COLM 2025: Conference on Language Modeling* (acceptance rate: 32.0%).

2. **Phraselette: A Poet's Procedural Palette**
Alex Calderwood, **John Joon Young Chung**, Yuqian Sun, Melissa Roemmele, Max Kreminski. In *Proceedings of DIS 2025: ACM Conference on Designing Interactive Systems* (acceptance rate: 24.2%).

3. **Fuzzy Linkography: Automatic Graphical Summarization of Creative Activity Traces**
Amy Smith, Barret R. Anderson, Jasmine Tan Otto, Isaac Karth, Yuqian Sun, **John Joon Young Chng**, Melissa Roemmele, Max Kreminski. In *Proceedings of C&C 2025: ACM Creativity and Cognition* (acceptance rate: 21.8%).
Honorable Mention Award (top 5%)

4. **Toyteller: AI-powered Visual Storytelling Through Toy-Playing with Character Symbols**
John Joon Young Chng, Melissa Roemmele, Max Kreminski. In *Proceedings of CHI 2025: ACM Conference on Human Factors in Computing Systems* (acceptance rate: 25.1%).

5. **Patchview: LLM-powered Worldbuilding with Generative Dust and Magnet Visualization**
John Joon Young Chung, Max Kreminski. In *Proceeding of UIST 2024: The ACM Symposium on User Interface Software and Technology* (acceptance rate: 24.0%).

6. **ComicShadow: Improving Shadowing Process through AI-driven Design for Digital Comic Professionals**
Amrita Ganguly, Chuan Yan, **John Joon Young Chung**, Tong Steven Sun, Yoon Kiheon, Yotam Gingold, Sungsoo Ray Hong. In *Proceeding of UIST 2024: The ACM Symposium on User Interface Software and Technology* (acceptance rate: 24.0%).

7. **One vs. Many: Comprehending Accurate Information from Multiple Erroneous and Inconsistent AI Generations**
Yoonjoo Lee, Kihoon Son, Tae Soo Kim, Jisu Kim, **John Joon Young Chung**, Eytan Adar, Juho Kim. In *Proceedings of FAccT 2024: ACM Conference on Fairness, Accountability, and Transparency* (acceptance rate: 24.1%).

8. **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%).
Honorable Mention Award (top 5%)

9. **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%).

10. **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%).

11. **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%).

12. **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%).

13. **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%).

14. **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%).

15. **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%).

16. **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%).

17. **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%).

18. **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%).

19. **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%).

20. **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*.

21. **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%).

22. **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%).

23. **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%).

24. **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*.

25. **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. **Scaling Analysis of Creative Activity Traces via Fuzzy Linkography**
   Amy Smith, Barret R. Anderson, Jasmine Tan Otto, Isaac Karth, Yuqian Sun, **John Joon Young Chng**, Melissa Roemmele, Max Kreminski. In *In Extended Abstracts of CHI 2025: ACM Conference on Human Factors in Computing Systems*

2. **Toyteller: Toy-Playing with Character Symbols for AI-Powered Visual Storytelling**
   John Joon Young Chung, Melissa Roemmele, Max Kreminski. In *Adjunct Proceedings of the 37th Annual ACM Symposium on User Interface Software and Technology* (Demo).

3. **Intent Elicitation in Mixed-Initiative Co-Creativity**
   Max Kreminski, **John Joon Young Chung**. In *5th Workshop on Human-AI Co-Creation with Generative Models at IUI 2024* (Workshop).

4. **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).

5. **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).

6. **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).

7. **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).

8. **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).

9. **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).

10. **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).

11. **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

Breadth of Midjourney Midjourney User Meetup in South Korea   MAR. 2025

Rethinking AI and Storytelling: Interactions, Technologies, and Media Seoul National University AI / Computing Frontier School   JAN. 2025

Learned from Struggles: From Ph.Ding in the US to Job Search Next Career Conference   DEC. 2024

New Creation Interactions with AI Busan International AI Film Festival   DEC. 2024

New Creation Interactions with AI Yonsei University   NOV. 2024

New Creation Interactions with AI Kookmin University   OCT. 2024

New Creation Interactions with AI ZEN AI Online Conference   SEP. 2024

New Creation Interactions with AI SIGCHI Korea Local Chapter   JULY. 2024

New Creation Interactions with AI Seoul National University   JUN. 2024

AI+Creation New Interaction and Media Hanyang University   APR. 2024

AI-powered Novel Interactions for Creative Writing KAIROS - 2024 Gen AI Meet Up   MAR., 2024

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 Fourth Workshop on Intelligent and Interactive Writing Assistants at NAACL2025 Organizer

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'20-25 (Outstanding Review × 6)
ACM CHI LBW'20-23
ACM UIST'20-24 (Outstanding Review × 3)
ACM CSCW'18, 20-25
ACM DIS'21-25 (Outstanding Review × 2)
ACM IUI'22-25 (Outstanding Review × 5)
ACM Creativity&Cognition'21-22, 24-25 (Outstanding Review × 2)
ACM IMWUT'22
ACM MobileHCI'20
ACM WebConf'20
IEEE VIS'23 (Outstanding Review × 1)
IEEE VL/HCC'21 (Outstanding Review × 1)
ACL'25
COLM'25

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