Youngjae Yu, Ph.D. (유영재, 劉永宰)

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Research Interests

- **Developing intelligent agents with commonsense reasoning capabilities that embody social responsibility.**
- Natural Language Processing, Vision and Language Intersection, Commonsense Reasoning, Multimodal Perception

Education

Allen Institute for AI, University of Washington — *Seattle, USA*
Postdoctoral Researcher (Young Investigator) — *Mar. 2021 – Mar.2023*
- Mosaic (Advisor: Yejin Choi)

Seoul National University — *Seoul, Korea*
Integrated MS / Ph.D program , Computer Science and Engineering — *Mar. 2015 – Feb. 2021*
- SNUVL Lab (Advisor: Gunhee Kim)

Seoul National University — *Seoul, Korea*
B.S. , Computer Science and Engineering — *Mar. 2009 - 2015*
- 2010 – 2012, On leave for military service, Republic of Korea Marine Corps

Research Appointments

2025-	**Assistant Professor**, Seoul National University, Computer Science and Engineering, School of Transdisciplinary Innovations
2023-2025	**Assistant Professor**, Yonsei University, School of Computing
2021-2023	**Young Investigator**, Allen Institute for AI, Mosaic Team (with Prof. Yejin Choi)
2018-2021	**Research Scientist**, Ripple AI
2018	**Research Intern**, Redmond, Microsoft

Selected Honors / Press Release

Selected Awards

- **Google Research Scholar Award 2025**, Natural language processing, Embodied AI safety
- **Best Method Paper Award** at NAACL 2022, NeuroLogic A*esque Decoding: Constrained Text Generation with Lookahead Heuristics.
- **Outstanding Paper Award** at EMNLP 2023, SODA: Million-scale Dialogue Distillation with Social Commonsense Contextualization.
- **Outstanding Paper Award** at ACL 2024, Can Large Language Models be Good Emotional Supporters? Mitigating Preference Bias on Emotional Support Conversation
- **Outstanding Paper Award** at Neurips 2024 Workshop on Open-World Agents, Integrating Visual and Linguistic Instructions for Context-Aware Navigation Agents
- **The Okawa Foundation Grant**, Active Learning Framework for Multimodal Action Agents: Integration of Web, Virtual, and Real-World Data

Press Release

- Press release in 2025 : Science News : Are AI chatbot ‘personalities’in the eye of the beholder?
- Press release in 2024 : The AI : Yonsei University is home to a LLM AI Student., DigitalChosun: The Identity of the ’AI Student’ Created by Yonsei University Students,AI Counseling Chatbot, AI Teaching Assistant,Chatbot Summit
- Press release prior to Ph.D. : AI Challenge, FashionIQ & LSMDC, ICCV17 LSMDC, MovieQA, Sarcasm Detection, LSMDC16

Publications

[53 Top Conf , 4 Journal , 6 Workshop, 33 Under-Review, Preprints]

[P90] *JointHOI: Jointly Generating Contact Maps Enhances Hand Object Interaction Generation* — *ECCV 2026*

Mingyeong Song, Jungbin Cho, Jisoo Kim, Ananya Bal, Kartik Sharma, **Youngjae Yu**, Laszlo A. Jeni, Junhyug Noh

[P89] *Spanning Tree Autoregressive Visual Generation* — *ECCV 2026*

Sangkyu Lee, Changho Lee, Janghoon Han, Hosung Song, Tackgeun You, Hwasup Lim, Stanley Jungkyu Choi, Honglak Lee, **Youngjae Yu**

[P88] *Judging What We Cannot Solve: A Consequence-Based Approach for Oracle-Free Evaluation of Research-Level Math* — *ICML 2026 (Spotlight)*

Guijin Son, Donghun Yang, Hitesh Laxmichand Patel, Hyunwoo Ko, Amit Agarwal, Sunghee Ahn, Kyong-Ha Lee, **Youngjae Yu**

[P87] *XNav-Pipe: Cross-Platform Robot Navigation Data Generation Pipeline* — *UR 2026*

Sungwoong Kim, Minseo Kim, Siyeol Kim, Junhee Park, **Youngjae Yu**

[P86] *Right at My Level: A Unified Multilingual Framework for Proficiency-Aware Text Simplification* — *ACL 2026*

Jinhong Jeong, Junghun Park, **Youngjae Yu**

[P85] *GuideDog: A Real-World Egocentric Multimodal Dataset for Blind and Low-Vision Accessibility-Aware Guidance* — *ACL 2026*

Junhyeok Kim*, Jaewoo Park*, Junhee Park, Sangeyl Lee, Jiwan Chung, Jisung Kim, Ji Hoon Joung, **Youngjae Yu**

[P84] *Mind the Motions: Benchmarking Theory-of-Mind in Everyday Body Language* — *ACL 2026*

Seungbeen Lee, Jinhong Jeong, Donghyun Kim, Yejin Son, **Youngjae Yu**

[P83] *Investigating Counterfactual Unfairness in LLMs towards Identities through Humor* — *ACL 2026*

Shubin Kim*, Yejin Son*, Junyeong Park, Keummin Ka, Seungbeen Lee, Jaeyoung Lee, Hyeju Jang, Alice Oh, **Youngjae Yu**

[P82] *Do MLLMs Capture How Interfaces Guide User Behavior? A Benchmark for Multimodal UI/UX Design Understanding* — *ACL 2026*

Jaehyun Jeon, Min Soo Kim, Janghan Yoon, Sumin Shim, Yejin Choi, Hanbin Kim, Dae Hyun Kim, **Youngjae Yu**

[P81] *Tracing Mathematical Proficiency Through Problem-Solving Processes* — *ACL 2026 Findings*

Jungyang Park*, Suho Kang*, Jaewoo Park, Jae Hong Kim, Jaewoo Shin, Seonjoon Park, **Youngjae Yu**

[P80] *DUSK: Do Not Unlearn Shared Knowledge* — *ACL 2026 Findings*

Wonje Jeung*, Sangyeon Yoon*, Hyesoo Hong, Soeun Kim, Seungju Han, **Youngjae Yu**, Albert No

[P79] *TIPO: Text to Image with Text Presampling for Prompt Optimization* — *ICLR 2026*

Shih-Ying Yeh*, Sang-Hyun Park*, Giyeong Oh, Min Song, **Youngjae Yu**

[P78] *D2E: Scaling Vision-Action Pretraining on Desktop Data for Transfer to Embodied AI* — *ICLR 2026*

Suwhan Choi*, Jaeyoon Jung*, Haebin Seong*, Minchan Kim, Minyeong Kim, Yongjun Cho, Yoonshik Kim, Yubeen Park, **Youngjae Yu**, Yunsung Lee

[P77] *Pushing on Multilingual Reasoning Models with Language-Mixed Chain-of-Thought* — *ICLR 2026*

Guijin Son, Donghun Yang, Hitesh Laxmichand Patel, Amit Agarwal, Hyunwoo Ko, Chanuk lim, Srikant Panda, Minhyuk Kim, Nikunj drolia, Dasol Choi, Kyong-Ha Lee, **Youngjae Yu**

[P76] *Teaching Metric Distance to Autoregressive Multimodal Foundational Models* — *ICLR 2026*

Jiwan Chung, Saejin Kim, Yongrae Jo, Jaewoo Park, Dongjun Min, **Youngjae Yu**

[P75] *Do Language Models Associate Sound with Meaning? A Multimodal Study of Sound Symbolism* — *AAAI 2026 (Oral)*

Jinhong Jeong*, Sunghyun Lee*, Jaeyoung Lee, Seonah Han, **Youngjae Yu**

[P74] *Explain with Visual Keypoints Like a Real Mentor! A Benchmark for Multimodal Solution Explanation* — *AAAI 2026*

Jaewoo Park*, Jungyang Park*, Dongju Jang, Jiwan Chung, Byungwoo Yoo, Jaewoo Shin, Seonjoon Park, Taehyeong Kim, **Youngjae Yu**

[P73] *NMIXX: Domain-Adapted Neural Embeddings for Cross-Lingual eXploration of Finance* — *CIKM 2025*

Hanwool Lee*, Sara Yu*, Yewon Hwang*, Jonghyun Choi, Heejae Ahn, Sungbum Jung, **Youngjae Yu**

[P72] *Revisiting Residual Connections: Orthogonal Updates for Stable and Efficient Deep Networks* — *NeurIPS 2025*

Giyeong Oh, Woohyun Cho, Siyeol Kim, Suhwan Choi, **Youngjae Yu**

[P71] *KL Penalty Control via Perturbation for Direct Preference Optimization* — *NeurIPS 2025*

Sangkyu Lee, Janghoon Han, Hosung Song, Stanley Jungkyu Choi, Honglak Lee, **Youngjae Yu**

[P70] *Diffusion-Driven Two-Stage Active Learning for Low-Budget Semantic Segmentation* — *NeurIPS 2025*

Jeongin Kim, Wonho Bae, YouLee Han, Giyeong Oh, **Youngjae Yu**, Danica J. Sutherland, Junhyug Noh

[P69] *Subtle Risks, Critical Failures: A Framework for Diagnosing Physical Safety of LLMs for Embodied Decision Making* — *EMNLP 2025*

Yejin Son*, Minseo Kim*, Sungwoong Kim, Seungju Han, Jian Kim, Dongju Jang, **Youngjae Yu**, Chanyoung Park

[P68] *VisEscape: A Benchmark for Evaluating Exploration-driven Decision-making in Virtual Escape Rooms* — *EMNLP 2025*

Seungwon Lim, Sungwoong Kim, Jihwan Yu, Sungjae Lee, Jiwan Chung, **Youngjae Yu**

[P67] *Zero-shot Multimodal Document Retrieval via Cross-modal Question Generation* — *EMNLP 2025*

Yejin Choi*, Jaewoo Park*, Janghan Yoon, Saejin Kim, Jaehyun Jeon, **Youngjae Yu**

[P66] *MAVL: A Multilingual Audio-Video Lyrics Dataset for Animated Song Translation* — *EMNLP 2025*

Woohyun Cho, Youngmin Kim, Sunghyun Lee, **Youngjae Yu**

[P65] *Multimodal UNcommonsense: From Odd to Ordinary and Ordinary to Odd* — *EMNLP 2025 Findings*

Yejin Son*, Saejin Kim*, Dongjun Min, **Youngjae Yu**

[P64] *G1yphD3c0de: Towards Safer Language Models on Visually Perturbed Texts* — *COLM 2025*

Yejin Choi, Yejin Yeo, Yejin Son, Seungju Han, **Youngjae Yu**

[P63] *Verifying the Verifiers: Unveiling Pitfalls and Potentials in Fact Verifiers* — *COLM 2025*

Wooseok Seo*, Seungju Han*, Jaehun Jung, Benjamin Newman, Seungwon Lim, Seungbeen Lee, Ximing Lu, Yejin Choi, **Youngjae Yu**

[P62] *HIPPO-VIDEO: Simulating Watch Histories with Large Language Models for History-Driven Video Highlighting* — *COLM 2025*

Jeongeun Lee, **Youngjae Yu**, Dongha Lee

[P61] *V.I.P.: Iterative Online Preference Distillation for Efficient Video Diffusion Models* — *ICCV 2025*

Jisoo Kim, Wooseok Seo, Junwan Kim, Seungho Park, Sooyeon Park, **Youngjae Yu**

[P60] *DisCoRD: Discrete Tokens to Continuous Motion via Rectified Flow Decoding* — *ICCV 2025*

Jungbin Cho*, Junwan Kim*, Jisoo Kim, Minseo Kim, Mingu Kang, Sungeun Hong, Tae-Hyun Oh, **Youngjae Yu**

[P59] *VAGUE: Visual Contexts Clarify Ambiguous Expressions* — *ICCV 2025*

Heejeong Nam, Jinwoo Ahn, Keummin Ka, Jiwan Chung, **Youngjae Yu**

[P58] *Scalp Diagnostic System With Label-Free Segmentation and Training-Free Image Translation* — *MICCAI 2025*

Youngmin Kim*, Saejin Kim*, Hoyeon Moon, **Youngjae Yu**, Junhyug Noh

[P57] *Speaking Beyond Language: A Large-Scale Multimodal Dataset for Learning Nonverbal Cues from Video-Grounded Dialogues* — *ACL 2025*

Youngmin Kim, Jiwan Chung, Jisoo Kim, Sunghyun Lee, Sangkyu Lee, Junhyeok Kim, Cheoljong Yang, **Youngjae Yu**

[P56] *Persona Dynamics: Unveiling the Impact of Personality Traits on Agents in Text-Based Games* — *ACL 2025*

Seungwon Lim, Seungbeen Lee, Dongjun Min, **Youngjae Yu**

[P55] *Are Any-to-Any Models More Consistent Across Modality Transfers Than Specialists?* — *ACL 2025*

Jiwan Chung, Janghan Yoon, Junhyeong Park, Sangeyl Lee, Joowon Yang, Sooyeon Park, **Youngjae Yu**

[P54] *Representation Bending for Large Language Model Safety* — *ACL 2025*

Ashkan Yousefpour*, Taeheon Kim*, Ryan S. Kwon, Seungbeen Lee, Wonje Jeung, Seungju Han, Harrison Ngan, Jonghyun Choi, **Youngjae Yu**

[P53] *CANVAS: Commonsense-Aware Navigation System for Intuitive Human-Robot Interaction* — *ICRA 2025*

Suhwan Choi, Yongjun Cho, Minchan Kim, Jaeyoon Jung, Myunchul Joe, Yubeen Park, Minseo Kim, Sungwoong Kim, Sungjae Lee, Hwiseong Park, Jiwan Chung, **Youngjae Yu**

[P52] *Do LLMs Have Distinct and Consistent Personality? TRAIT: Personality Testset designed for LLMs with Psychometrics* — *NAACL 2025*

Seungbeen Lee, Seungwon Lim, Seungju Han, Giyeong Oh, Jiwan Chung, Minju Kim, Yeonsoo Lee, Dongha Lee, Jinyoung Yeo, **Youngjae Yu**

[P51] *C^2 : Scalable Auto-Feedback for LLM-based Chart Generation* — *NAACL 2025*

Woosung Koh*, Janghan Yoon*, Minhyung Lee, Youngjin Song, Jaegwan Cho, Jaehyun Kang, Taehyeon Kim, Seyoung Yun, **Youngjae Yu**, Bongshin Lee

[P50] *EgoSpeak: Learning When to Speak for Egocentric Conversational Agents in the Wild* — *NAACL 2025*

Junhyeok Kim, Minsoo Kim, Jiwan Chung, Jungbin Cho, Jisoo Kim, Sungwoong Kim, Gyeongbo Sim, **Youngjae Yu**

[P49] *MASS: Overcoming Language Bias in Image-Text Matching* — *AAAI 2025*

Jiwan Chung, Seungwon Lim, Sangkyu Lee, **Youngjae Yu**

[P48] *DEEPTalk: Dynamic Emotion Embedding for Probabilistic Speech-Driven 3D Face Animation* — *AAAI 2025*

Jisoo Kim, Jungbin Cho, Joonho Park, Soonmin Hwang, Da Eun Kim, Geon Kim, **Youngjae Yu**

[P47] *i-SRT: Aligning Large Multimodal Models for Videos by Iterative Self-Retrospective Judgment* — *AAAI 2025*

Daechul Ahn, Yura Choi, San Kim, **Youngjae Yu**, Dongyeop Kang, Jonghyun Choi

[P46] Towards Visual Text Design Transfer Across Languages — *NeurIPS 2024*

Yejin Choi, Jiwan Chung, Sumin Shim, Giyeong Oh, **Youngjae Yu**

[P45] *Can Visual Language Models Resolve Textual Ambiguity with Visual Cues? Let Visual Puns Tell You!* — *EMNLP 2024*

Jiwan Chung, Seungwon Lim, Jaehyun Jeon, Seungbeen Lee, **Youngjae Yu**

[P44] *ActionSwitch: Class-agnostic Detection of Simultaneous Actions in Streaming Videos* — *ECCV 2024*

Hyolim Kang, Jeongseok Hyun, Joungbin An, **Youngjae Yu**, Seon Joo Kim

[P43] *CACTUS: Towards Psychological Counseling Conversations using Cognitive Behavioral Theory* — *EMNLP 2024 (Findings)*

Suyeon Lee, Sunghwan Kim, Minju Kim, Dongjin Kang, Dongil Yang, Harim Kim, Minseok Kang, Dayi Jung, Min Hee Kim, Seungbeen Lee, Kyoung-Mee Chung, **Youngjae Yu**, Dongha Lee, Jinyoung Yeo

[P42] *How well do large language model-based chatbots perform in oral and maxillofacial radiology?* — *DMFR2024*

Hui Jeong, Sang-Sun Han, Minhyung Lee, **Youngjae Yu**, Saejin Kim, Kug Jin Jeon

[P41] *How to Train Your Fact Verifier: Knowledge Transfer with Multimodal Open Models* — *EMNLP 2024 (Findings)*

Jaeyoung Lee, Ximing Lu, Jack Hessel, Faeze Brahman, **Youngjae Yu**, Yonatan Bisk, Yejin Choi, Saadia Gabriel

[P40] *Selective Vision is the Challenge for Visual Reasoning: A Benchmark for Visual Argument Understanding* — *EMNLP 2024*

Jiwan Chung, Sungjae Lee, Minseo Kim, Seungju Han, Ashkan Yousefpour, Jack Hessel, **Youngjae Yu**

[P39] *Tuning Large Multimodal Models for Videos using Reinforcement Learning from AI Feedback* — *ACL 2024 (Oral)*

Daechul Ahn, Yura Choi, **Youngjae Yu**, Dongyeop Kang, Jonghyun Choi

[P38] *Aligning Large Language Models by On-Policy Self-Judgment* — *ACL 2024*

Sangkyu Lee, Sungdong Kim, Ashkan Yousefpour, Minjoon Seo, Kang Min Yoo, **Youngjae Yu**

[P37] *Pearl: A Review-driven Persona-Knowledge Grounded Conversational Recommendation Dataset* — *ACL 2024*

Minjin Kim, Minju Kim, Hana Kim, Beong-woo Kwak, Soyeon Chun, Hyunseo Kim, SeongKu Kang, **Youngjae Yu**, Jinyoung Yeo, Dongha Lee

[P36] *Can Large Language Models be Good Emotional Supporters? Mitigating Preference Bias on Emotional Support Conversation* — *ACL 2024 (Outstanding)*

Dongjin Kang, Sunghwan Kim, Taeyoon Kwon, Seungjun Moon, Hyunsouk Cho, **Youngjae Yu**, Dongha Lee, Jinyoung Yeo

[P35] *Language Models as Compilers: Simulating Pseudocode Execution Improves Algorithmic Reasoning in Language Models* — *EMNLP 2024*

Hyungjoo Chae, Yeonghyeon Kim, Seungone Kim, Kai Tzu-iunn Ong, Beong-woo Kwak, Seonghwan Kim, Taeyoon Kwon, Jiwan Chung, **Youngjae Yu**, Jinyoung Yeo

[P34] *SMILE: Multimodal Dataset for Understanding Laughter in Video with Language Models* — *NAACL 2024*

Hyun Lee, Kim Sung-Bin, Seungju Han, **Youngjae Yu**, Tae-Hyun Oh

[P33] *CLARA: Classifying and Disambiguating User Commands for Reliable Interactive Robotic Agents* — *RA-L/ICRA 2024*

Jeongeun Park, Seungwon Lim, Joonhyung Lee, Sangbeom Park, Minsuk Chang, **Youngjae Yu** and Sungjoon Choi

[P32] *Localized Symbolic Knowledge Distillation for Visual Commonsense Models* — *Neurips 2023*

Jae Sung Park, Jack Hessel, Khyathi Chandu, Paul Pu Liang, Ximing Lu, **Youngjae Yu**, Qiuyuan Huang, Peter West, Jianfeng Gao, Ali Farhadi, Yejin Choi and Qiuyuan Huang

[P31] *Reading Books is Great, But Not if You Are Driving! Visually Grounded Reasoning about Defeasible Commonsense Norms* — *EMNLP 2023 (Oral)*

Seungju Han, Junhyeok Kim, Jack Hessel, Liwei Jiang, Jiwan Chung, Yejin Son, Yejin Choi and **Youngjae Yu**

[P30] *VLIS: Unimodal Language Models Guide Multimodal Language Generation* — *EMNLP 2023*

Jiwan Chung, **Youngjae Yu**

[P29] *SODA: Million-scale Dialogue Distillation with Social Commonsense Contextualization* — *EMNLP 2023 (Outstanding Paper)*

Hyunwoo Kim, Jack Hessel, Liwei Jiang, Peter West, Ximing Lu, Youngjae Yu, Pei Zhou, Ronan Le Bras, Malihe Alikhani, Gunhee Kim, Maarten Sap and Yejin Choi

[P28] *Dialogue Chain-of-Thought Distillation for Commonsense-aware Conversational Agents* — *EMNLP 2023*

Hyungjoo Chae, Yongho Song, Kai Tzu-iunn Ong, Taeyoon Kwon, Minjin Kim, **Youngjae Yu**, Dongha Lee, Dongyeop Kang and Jinyoung Yeo

[P27] *Long Story Short: a Summarize-then-Search Method for Long Video Question Answering* — *BMVC 2023*

Jiwan Chung, **Youngjae Yu**

[P26] *CHAMPAGNE: Learning Real-world Conversation from Large-Scale Web Videos* — *ICCV 2023*

Seungju Han, Jack Hessel, Nouha Dziri, Yejin Choi and **Youngjae Yu**

[P25] *Multimodal C4: An Open, Billion-scale Corpus of Images Interleaved With Text* — *Neurips 2023*

Wanrong Zhu, Jack Hessel, Anas Awadalla, Samir Yitzhak Gadre, Jesse Dodge, **Youngjae Yu**, Ludwig Schmidt, William Yang Wang and Yejin Choi

[P24] *Fusing Pre-trained Language Models with Multimodal Prompts through Reinforcement Learning* — *CVPR 2023*

Youngjae Yu*, Jiwan Chung*, Heeseung Yun, Jack Hessel, Jae Sung Park, Ximing Lu, Prithviraj Ammanabrolu, Rowan Zellers, Ronan Le Bras, Gunhee Kim, Yejin Choi (* equal contribution)

[P23] *Symbolic Chain-of-Thought Distillation: Small Models Can Also "Think" Step-by-Step* — *ACL 2023*

Wanrong Zhu, Jack Hessel, Anas Awadalla, Samir Yitzhak Gadre, Jesse Dodge, **Youngjae Yu**, Ludwig Schmidt, William Yang Wang and Yejin Choi

[P22] *Zero-shot Active Visual Search (ZAVIS): Intelligent Object Search for Robotic Assistants* — *ICRA 2023*

Jeongeun Park, Taerim Yoon, Jejoon Hong, **Youngjae Yu**, Matthew Pan and Sungjoon Choi

[P21] *PROSOCIALDIALOG:A Prosocial Backbone for Conversational Agents* — *EMNLP 2022*

Hyunwoo Kim*, **Youngjae Yu***, Liwei Jiang, Ximing Lu, Daniel Khashabi, Gunhee Kim, Yejin Choi, Maarten Sap (* equal contribution)

[P20] *NeuroLogic A* esque Decoding: Constrained Text Generation with Lookahead Heuristics* — *NAACL 2022*

Ximing Lu, Sean Welleck, Peter West, Liwei Jiang, Jungo Kasai, Daniel Khashabi, Ronan Le Bras, Lianhui Qin, **Youngjae Yu**, Rowan Zellers, Noah A Smith, Yejin Choi

[P19]	*Connecting the Dots between Audio and Text without Parallel Data through Visual Knowledge Transfer* Yanpeng Zhao, Jack Hessel, **Youngjae Yu**, Ximing Lu, Rowan Zellers, Yejin Choi	*NAACL 2022*
[P18]	*MERLOT Reserve: Neural Script Knowledge through Vision and Language and Sound* Rowan Zellers, Jiasen Lu, Ximing Lu, **Youngjae Yu**, Yanpeng Zhao, Mohammadreza Salehi, Aditya Kusupati, Jack Hessel, Ali Farhadi, Yejin Choi	*CVPR 2022*
[P17]	*MERLOT: Multimodal Neural Script Knowledge Models* Rowan Zellers*, Ximing Lu*, Jack Hessel*, **Youngjae Yu**, Jae Sung Park, Jize Cao, Ali Farhadi, Yejin Choi	*Neurips 2022*
[P16]	*Pano-AVQA: Grounded Audio-Visual Question Answering on 360° Videos* Heeseung Yun, **Youngjae Yu**, Wonsuk Yang, and Gunhee Kim	*ICCV 2021*
[P15]	*Automatic Curation of Large-Scale Datasets for Audio-Visual Representation Learning* Sangho Lee*, Jiwan Chung*, **Youngjae Yu**, Gunhee Kim, Thomas Breuel, Gal Chechik, Yale Song (* equal contribution)	*ICCV 2021*
[P14]	*Transitional Adaptation of Pretrained Models for Visual Storytelling* **Youngjae Yu***, Jiwan Chung*, Heeseung Yun, Jongseok Kim, and Gunhee Kim	*CVPR 2021*
[P13]	*Self-Supervised Learning of Compressed Video Representations* **Youngjae Yu***, Sangho Lee*, Gunhee Kim and Yale Song	*ICLR 2021*
[P12]	*Parameter Efficient Multimodal Transformers for Video Representation Learning* Sangho Lee, **Youngjae Yu**, Gunhee Kim, Thomas Breuel, Jan Kautz and Yale Song	*ICLR 2021*
[P11]	*Dual Compositional Learning for Interactive Image Retrieval* Jongseok Kim, **Youngjae Yu**, Hoeseong Kim and Gunhee Kim	*AAAI 2021*
[P10]	*Character Grounding and Re-Identification in Story of Videos and Text Descriptions* **Youngjae Yu**, Jongseok Kim, Heeseung Yun, Jiwan Chung and Gunhee Kim	*ECCV 2020 (Spotlight)*
[P9]	*Video Question Answering with Spatio-Temporal Reasoning* Yunseok Jang, Yale Song, Chris Dongjoo Kim, **Youngjae Yu**, Youngjin Kim, Gunhee Kim	*IJCV 2019*
[P8]	*A Joint Sequence Fusion Model for Video Question Answering and Retrieval* **Youngjae Yu**, Jongseok Kim and Gunhee Kim	*ECCV 2018*
[P7]	*A Memory Network Approach for Story-based Temporal Summarization of 360° Videos* Sangho Lee, Jinyoung Sung, **Youngjae Yu** and Gunhee Kim	*CVPR 2018*
[P6]	*A Deep Ranking Model for Spatio-Temporal Highlight Detection from a 360° Video* **Youngjae Yu**, Sangho Lee, Joonil Na, Jaeyun Kang, Gunhee Kim	*AAAI 2018*
[P5]	*Supervising Neural Attention Models for Video Captioning by Human Gaze Data* **Youngjae Yu**,Jongwook Choi, Yeonhwa Kim, Kyoung Yu, Sang-hun Lee, Gunhee Kim	*CVPR 2017*
[P4]	*End-to-end Concept Word Detection for Video Captioning, Retrieval, and Question Answering* **Youngjae Yu**,Hyungjin Ko, Jongwook Choi, Gunhee Kim	*CVPR 2017 (Spotlight)*
[P3]	*TGIF-QA: Toward Spatio-Temporal Reasoning in Visual Question Answering* Yunseok Jang, Yale Song, **Youngjae Yu**, Youngjin Kim, Gunhee Kim	*CVPR 2017 (Spotlight)*
[P2]	*TimesVector: A Vectorized Clustering Approach to the Analysis of Time Series Transcriptome Data from Multiple Phenotypes* Inuk Jung, Kyuri Jo, Hyejin Kang, Hongryul Ahn, **Youngjae Yu**, Sun Kim	*Bioinformatics 2017*
[P1]	*TimesVector: A Vectorized Clustering Approach to the Analysis of Time Series Transcriptome Data from Multiple Phenotypes* Inuk Jung, Kyuri Jo, Hyejin Kang, Hongryul Ahn, **Youngjae Yu**, Sun Kim	*GIW 2016*

Thesis

2021 *Large-scale video understanding with narrative description* — *Ph.D. Thesis*

Youngjae Yu, Gunhee Kim

2015 *Correlation Based Feature Selection and Pattern Clustering Method for Time Series Gene Expression Data of Drought Stressed Rice* — *B.S. Thesis*

Youngjae Yu, Sun Kim

Workshop

[W6] *Integrating Visual and Linguistic Instructions for Context-Aware Navigation Agents* — *Neurips 2024 OAD (Best Paper)*

Suhwan Choi, Yongjun Cho, Minchan Kim, Jaeyoon Jung, Myunchul Joe, Park Yu Been, Minseo Kim, Sungwoong Kim, Sungjae Lee, WHISEONG PARK, Jiwan Chung,**Youngjae Yu**

[W5] *Cycled Compositional Learning between Images and Text* — *CVPR 2020 CVFAD*

Youngjae Yu *, Jongseok Kim *, Seunghwan Lee, Gunhee Kim, (* is equal contribution.)

[W4] *Augmenting Data for Sarcasm Detection with Unlabeled Conversation Context* — *In ACL 2020, FLP*

Hankyol Lee, **Youngjae Yu**, Gunhee Kim

[W3] *CurlingNet: Compositional Learning between Images and Text for Fashion IQ Data* — *ICCV 2019 CVFAD*

Youngjae Yu, Seunghwan Lee, Yuncheol Choi, Gunhee Kim

[W2] *Encoding Video and Label Priors for Multi-label Video Classification on YouTube-8M dataset* — *CVPR 2017 & YouTube-8M*

Seil Na, **Youngjae Yu**, Sangho Lee, Jisung Kim, Gunhee Kim

[W1] *Video Captioning and Retrieval Models with Semantic Attention* — *ECCV 2016 LSMDC & VisStory*

Youngjae Yu,Hyungjin Ko, Jongwook Choi, Gunhee Kim

Preprints / Under review

[A33] *When AI Co-Scientists Fail: SPOT—a Benchmark for Automated Verification of Scientific Research* — *Underreview*

Guijin Son, Jiwoo Hong, Honglu Fan, Heejeong Nam, Hyunwoo Ko, Seungwon Lim, Jinyeop Song, Jinha Choi, Gonçalo Paulo, **Youngjae Yu**, Stella Biderman

[A32] *DUSK: Do Not Unlearn Shared Knowledge* — *Underreview*

Wonje Jeung, Sangyeon Yoon, Hyesoo Hong, Soeun Kim, Seungju Han,**Youngjae Yu**, Albert No

[A31] *Subtle Risks, Critical Failures: A Framework for Diagnosing Physical Safety in Embodied AI* — *Underreview*

Yejin Son, Minseo Kim, Sungwoong Kim, Seungju Han, Jian Kim, Chan Young Park, **Youngjae Yu**

[A31] *Diffusion-Driven Two-Stage Active Learning for Low-Budget Semantic Segmentation* — *Underreview*

Sooyeon Park, Chanhum Park, SungahKim, Son Heesoo, Joonho Lee, **Youngjae Yu**

[A30] *Diffusion-Driven Two-Stage Active Learning for Low-Budget Semantic Segmentation* — *Underreview*

Jeongin Kim, Wonho Bae, YouLee Han, Giyeong Oh, **Youngjae Yu**, Danica J. Sutherland, Junhyug Noh

[A29] *Verifying the Verifiers: Unveiling Pitfalls and Potentials in Fact Verifiers* — *Underreview*

Wooseok Seo, Seungju Han, Jaehun Jung, Benjamin Newman, Seungwon Lim, Seungbeen Lee, Ximing Lu, Yejin Choi, **Youngjae Yu**

[A28] *FSCM-Diffusion: Stepwise Control of Climate Phenomena using Fused Structural Condition Maps* — *Underreview*

Sooyeon Park, Chanhum Park, SungahKim, Son Heesoo, Joonho Lee, **Youngjae Yu**

[A27] *G1yphD3c0de: Towards Safer Language Models on Visually Perturbed Texts* — *Underreview*

Yejinchoi, Yejin Yeo, Yejin Son, Seungju Han, **Youngjae Yu**

[A26] *Explain with Visual Keypoints Like a Real Mentor! A Benchmark for Multimodal Solution Explanation* — *Underreview*

Jaewoo Park, Jungyang Park, Dongju Jang, Jiwan Chung, Byungwoo Yoo, Jaewoo Shin, Seonjoon Park, Taehyeong Kim, **Youngjae Yu**

[A25] *Pre-generated Questions as Efficient Semantic Bridges for Multimodal Document Retrieval-Augmented Generation* — *Underreview*

Yejinchoi, Jaehyun Jeon, Jang Han Yoon, Saejin Kim, **Youngjae Yu**

[A24] *G-FOCUS: A Robust Method for Assessing UI Design Persuasiveness* — *Underreview*

Jaehyun Jeon, Janghan Yoon, Min Soo Kim, Sumin Shim, Yejinchoi, Hanbin Kim, **Youngjae Yu**

[A23] *Not All Who Wander Are Lost: Building Fantasy-World Commonsense with GANDALF* — *Underreview*

Keummin Ka, Min Soo Kim, Jungyang Park, Chanwoo Choi, Buru Chang, **Youngjae Yu**

[A22] *Wait... Was That a Sign? Reading Minds Through Actions: Observable Theory of Mind with Non-verbal Cues* — *Underreview*

Seungbeen Lee, Jinhong Jeong, Donghyun Kim, Yejin Son, **Youngjae Yu**

[A21] *KL Penalty Control via Perturbation for Direct Preference Optimization* — *Underreview*

Sangkyu Lee, Janghoon Han, Hosung Song, Stanley Jungkyu Choi, Honglak Lee. **Youngjae Yu**

[A20] *TIPO: Text to Image with Text Pre-sampling for Prompt Optimization* — *Underreview*

Shih-Ying Yeh, SangHyun Park, YI LI, Giyeong Oh, Xuehai Wang, Min Song, **Youngjae Yu**

[A19] *HIPPO-VIDEO : Simulating Watch Histories with Large Language Models for History-Driven Video Highlighting* — *Underreview*

Jeongeun Lee,**Youngjae Yu**, Dongha Lee

[A18] *VAGUE: Visual Contexts Clarify Ambiguous Expressions* — *Underreview*

Heejeong Nam, Jinwoo Ahn, Keummin Ka, Jiwan Chung, **Youngjae Yu**

[A17] *Teaching Metric Distance to Autoregressive Multimodal Foundational Models* — *Underreview*

Jiwan Chung, Saejin Kim, Yongrae Jo, Jaewoo Park, Dongjun Min, **Youngjae Yu**

[A16] *GuideDog: A Real-World Multimodal Dataset for Blind and Low-Vision Accessibility-Aware Guidance* — *Underreview*

Junhyeok Kim, Jaewoo Park, Junhee Park, Sangeyl Lee, Jiwan Chung, Jisung Kim, Ji Hoon Joung, **Youngjae Yu**

[A15] *V.I.P. : Iterative Online Preference Distillation for Efficient Video Diffusion Models* — *Underreview*

Jisoo Kim, Wooseok Seo, Junwan Kim, Seungho Park, Sooyeon Park, **Youngjae Yu**

[A14] *VisEscape: A Benchmark for Evaluating Exploration-driven Decision-making in Virtual Escape Rooms* — *Underreview*

Seungwon Lim, Sungwoong Kim, Jihwan Yu, Sungjae Lee, Jiwan Chung, **Youngjae Yu**

[A13] *MAVL: A Multilingual Audio-Video Lyrics Dataset for Animated Song Translation* — *Underreview*

Woohyun Cho, Youngmin Kim, sunghyun lee, **Youngjae Yu**

[A12] *HyperCLOVA X Technical Report* — *TechReport*

Jiwan Chung, Sangkyu Lee, **Youngjae Yu** contributed. 300+ authors

[A11] *Representation Bending for Large Language Model Safety* — *Underreview*

Ashkan Yousefpour, Taeheon Kim, Ryan Sungmo Kwon, Seungbeen Lee, Wonje Jeung, Seungju Han, Alvin Wan, Harrison Ngan, Jonghyun Choi, **Youngjae Yu**

[A10] *Revisiting Residual Connections: Orthogonal Updates for Stable and Efficient Deep Networks* — *Underreview*

Giyeong Oh, Woohyun Cho, Siyeol Kim, Suhwan Choi, **Youngjae Yu**

[A9] *Connecting the Dots from Data to Dreams: LLM-Driven Cartographies of Career Pathways as Your AI Career Explorer* — *Underreview*

Seungbeen Lee,Keummin Ka, Jinhong Jeong, Chaewon Kim, Seungju Han, **Youngjae Yu**

[A8] *Teaching Metric Distance to Autoregressive Discrete Foundational Models* — *Underreview*

Jiwan Chung, Saejin Kim, Jaewoo Park, Dongjun Min, **Youngjae Yu**

[A7]	*MADRAG: Multimodal Anomaly Detection with Multimodal Retrieval Augmented Generation* Yejin Son, Saejin Kim, In Sung Song, Dongjun Min, **Youngjae Yu**	*Underreview*
[A6]	*DisCoRD: Discrete Tokens to Continuous Motion via Rectified Flow Decoding* Jungbin Cho, Junwan Kim, Jisoo Kim, Minseo Kim, Mingu Kang, Sungeun Hong, Tae-Hyun Oh, **Youngjae Yu**	*Underreview*
[A5]	*Don't Look Only Once: Towards Multimodal Interactive Reasoning with Selective Visual Revisitation* Jiwan Chung, Junhyeok Kim, Siyeol Kim, Jaeyoung Lee, Min Soo Kim, **Youngjae Yu**	*Underreview*
[A4]	*Simulating Watch History for a Personalized Video Summarization Dataset* Jeongeun Lee, Sungjae Lee, Jaehyun Jeon, Dongha Lee, **Youngjae Yu**	*Underreview*
[A3]	*Scalp Diagnostic System With Label-Free Segmentation and Training-Free Image Translation* Youngmin Kim, Saejin Kim, Hoyeon Moon, **Youngjae Yu**, Junhyug Noh	*Underreview*
[A2]	*SEAL: Entangled White-box Watermarks on Low-Rank Adaptation* Giyeong Oh, Saejin Kim, Woohyun Cho, Sangkyu Lee, Jiwan Chung, Dokyung Song, **Youngjae Yu**	*Underreview*
[A1]	*Layout-and-Retouch: A Dual-stage Framework for Improving Diversity in Personalized Image Generation* Kangyeol Kim, Wooseok Seo, Sehyun Nam, Bodam Kim, Suhyeon Jeong, Wonwoo Cho, Jaegul Choo, **Youngjae Yu**	*Underreview*

Honors & Awards

2025	**60000$**, Natural language processing, Embodied AI safety	*Google Research Scholar Award*
2025	**10000$**, Active Learning Framework for Multimodal Action Agents: Integration of Web, Virtual, and Real-World Data	*The Okawa Foundation Grant*
2024	**Outstanding Paper**, Can Large Language Models be Good Emotional Supporters? Mitigating Preference Bias on Emotional Support Conversation	*ACL 2024*
2023	**Outstanding Paper**, SODA: Million-scale Dialogue Distillation with Social Commonsense Contextualization	*EMNLP 2023*
2022	**Best Method Paper**, NeuroLogic A*esque Decoding: Constrained Text Generation with Lookahead Heuristics	*NAACL 2022*
2021	**Best Thesis Award**, College of Engineering, Best Thesis Award	*SNU, College of Engineering*
2021	**Award**, BK Excellent Researcher Award	*SNU*
2021	**Award**, The Best Doctoral Dissertation Award	*SNU CSE*
2020	**130K $ investment**, Leader of RippleAI Team, AI Challenge-NIPA	*Seoul, Korea*
2020	**1st prize**, DramaQA Challenge	*ECCV 2020*
2020	**1st prize**, Fashion IQ 2020 Challenge	*CVPR 2020*
2020	**1st prize**, Sarcasm detection shared task - The Second Workshop on Figurative Language Processing	*ACL 2020*
2019	**2nd prize**, Fashion IQ 2019 Challenge	*ICCV 2019*
2019	**1st prize**, Large Scale Movie Description and Understanding Challenge (LSMDC 2019)	*ICCV 2019 CLVL*
2017	**Fellowship**, NAVER PhD Fellowship award	*NAVER*
2018	**Google Travel Grants**, Grant recipient for attending ECCV 2018 (Munich, Germany)	*Google*
2018	**Kakao Travel Grants**, Grant recipient for attending ICLR 2018 (Vancouver, Canada)	*Kakao*
2017	**1st prize**, Movie Annotation and Retrieval track, Movie Fill-in-the-Blank track - Large Scale Movie Description and Understanding Challenge (LSMDC 2017)	*ICCV 2017 LSMDC & MovieQA*
2016	**1st prize**, Movie Annotation and Retrieval track, Movie Fill-in-the-Blank track - Large Scale Movie Description and Understanding Challenge (LSMDC 2016)	*ECCV 2016 LSMDC & VisStory*

Professional Activities

Academic Activities

Reviewer, Program Committee

- ACL, EMNLP, NAACL, COLING, CVPR, ECCV, ICCV, ACCV, AAAI, Neurips, ICLR, ICML, ICMI, TPAMI, IJCV, MM, TCSVT

Area Chair

- ACL 2025, ICLR 2025

Teaching Experience

[C8]	**Object-oriented programming (CCO1102.01-00)**, 3 credits, 2023/2024/2025	*Yonsei University*
[C7]	**Multimodal deep learning (AAI5010.01-00)**, 3 credits, 2023/2024/2025	*Yonsei University*
[C6]	**Deep learning for natural language and multimodal processing (GEV6146.01-00)**, 3 credits, 2024	*Yonsei University*
[C5]	**Introduction to multimodal deep learning (AAI4101.01-00)**, 3 credits, 2023/2024	*Yonsei University*
[C4]	**Artificial intelligence for military applications (DIC6102.01-00)**, 3 credits, 2024	*Yonsei University*
[C3]	**Recent advances in artificial intelligence (ICD6001.01-00)**, 3 credits, 2024	*Yonsei University*
[C2]	**Recent advances in multimodal deep learning (ICD6002.01-00)**, 3 credits, 2024	*Yonsei University*
[C1]	**Advanced video processing (AAI5012.01-00)**, 3 credits, 2023	*Yonsei University*

Graduate Teaching Assistant

[T2]	**Probabilistic Graphical Models (4190.773)**, 3 credits, 2016/2020	*Seoul National University*
[T1]	**Operating System (4190.307)**, 3 credits, 2015/2016	*Seoul National University*

Supervision