Sung Hyo **Chung**

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Interests

- Human-Centered AI, Visualization with AI, and Computer Vision

Education

Korea University *Seoul, Korea*

M.Eng. in Computer Science and Engineering, GPA: 4.33 / 4.5 *Mar. 2017 – Aug. 2019*

- Data and Visual Analytics Lab (DAVIAN), *Advisor: Dr. Jaegul Choo*

Korea University *Seoul, Korea*

B.S in Computer Science and Engineering, GPA: 4.09 / 4.5 *Mar. 2013 – Feb. 2017*

- *Graduated with Great Honor*

Industry Experience

Kakao Group (Kakao Corp, Kakao Enterprise, Kakao Brain) *Seongnam, Korea*

Research Engineer *Jul. 2019 - Present*

- **Multimodal Large Language Models (MLLM)**: Developed and fine-tuned a language and vision model tailored for the fashion industry, enabling image recommendations from product descriptions. Contributed to Korean MLLM model development and instruction set translation.
- **Optical character recognition (OCR)**: Worked on OCR-related projects, including developing scene text detection, recognition, and document understanding models.

Naver Corp. *Seongnam, Korea*

Research Intern at CLOVA Vision (OCR team), *Adviser: Dr. Hwalsuk Lee* *Mar. 2018 - Aug. 2018*

- **Optical character recognition (OCR)**: Worked on scene text detection and script identification tasks. Achieved first place on script identification task on ICDAR MLT 2017 dataset. (Jul. 2018, News article)

Internship at Search, Crawling team *Jul. 2016 - Aug. 2016*

- **Website title assignment project:** Used machine learning techniques to select the best title of a website. Collected and pre-processed candidate titles of a website, then applied term frequency and POS tagging to select an appropriate title.

Publications

- **Character-Level Long-Tailed Distribution in Scene Text Recognition**
  Sunghyun Park,* **Sunghyo Chung,*** Jungsoo Lee, and Jaegul Choo (*: equal contributions). Under Review, Arxiv 2023
- **A Scanner Deeply: Predicting Gaze Heatmaps on Visualizations Using Crowdsourced Eye Movement Data**
  Sungbok Shin, **Sunghyo Chung**, Sanghyun Hong, and Niklas Elmqvist. IEEE Trans. on Visualization and Computer Graphics (**TVCG**), 2023 (Proc. IEEE VIS'22) (26.5% acceptance rate)
- **AnimeCeleb: Large-Scale Animation CelebHeads Dataset for Head Reenactment**
  Kangyeol Kim,* Sunghyun Park,* Jaeseong Lee,* **Sunghyo Chung**, Junsoo Lee, and Jaegul Choo (*: equal contributions). European Conference on Computer Vision (**ECCV**), 2022, WA (28.4% acceptance rate)
- **VATUN: Visual Analytics for Testing and Understanding Convolutional Neural Networks**
  Cheonbok Park,* Soyoung Yang,* Inyoup Na,* **Sunghyo Chung**, Sungbok Shin, Bum Chul Kwon, Deokgun Park, and Jaegul Choo (*: equal contributions). EG/VGTC Conference on Visualization (**EuroVis**), Short Paper, 2021
- **Exploring Unlabeled Faces for Novel Attribute Discovery**
  Hyojin Bahng, **Sunghyo Chung**, Seungjoo Yoo, and Jaegul Choo. IEEE Conference on Computer Vision and Pattern Recognition (**CVPR**), 2020, WA (22.1% acceptance rate)
- **Learning to Focus and Track Extreme Climate Events**
  Sookyung Kim,* Sunghyun Park,* **Sunghyo Chung,*** Joonseok Lee, Yunsung Lee, Hyojin Kim, Mr Prabhat, and Jaegul Choo (*: equal contributions). British Machine Vision Conference (**BMVC**), 2019, Cardiff, UK, Accepted as Spotlight Presentation (6.9% acceptance rate for spotlight papers).
- **Coloring With Limited Data: Few-Shot Colorization via Memory-Augmented Networks**
  Seungjoo Yoo, Hyojin Bahng, **Sunghyo Chung**, Junsoo Lee, Jaehyuk Chang, and Jaegul Choo. IEEE Conference on Computer Vision and Pattern Recognition (**CVPR**), 2019, CA (25.2% acceptance rate).
- **ReVACNN: Steering Convolutional Neural Network via Real-Time Visual Analytics**
  Sunghyo Chung, Cheonbok Park, Sangho Suh, Kyeongpil Kang, Jaegul Choo, and Bum Chul Kwon. Future of Interactive Learning Machines Workshop at NIPS (**NIPS'16-FILM**), 2016.

Honors & Awards

2017	**Great Honor**, Winter 2017 Graduation	*Korea University*
2015-16	**National Science and Engineering Scholarship**, 2015, 2016	*Korea Student Aid Foundation*
2013-16	**Semester High Honors**, 1st Semester 2013, 1st Semester 2014, 1st and 2nd Semester 2015, 1st Semester2016	*Korea University*
2015	**Dean' s List**, 2nd Semester 2015	*Korea University*