# Juhong Min

Position Postdoctoral researcher

Graduate School of Artificial Intelligence

Pohang University of Science and Technology (POSTECH)

Contact

Computer Vision Laboratory

Information

E2 302, Department of CSE, POSTECH

77, Cheongam-ro, Nam-gu,

Pohang-si, Gyeongsangbuk-do, 376723

Republic of Korea

e-mail: juhongm999@postech.ac.kr

Homepage: https://juhongm999.github.io

CITIZENSHIP

The Republic of Korea

Research

Computer Vision,

Interests

Visual correspondences and its applications,

Robotics,

Multimodal learning.

EDUCATION

### Pohang University of Science and Technology (POSTECH), Pohang, Korea

Ph.D., Department of Computer Science and Engineering

 $\mathbf{Sep}\ \mathbf{2018} - \mathbf{Feb}\ \mathbf{2024}$ 

• Advisor: Prof. Minsu Cho

• Dissertation: Learning Visual Correspondence: Exploring Multi-Level Neural Features and High-Dimensional Transforms

• Cumulative GPA: 4.12/4.3

## The Pennsylvania State University, State College, PA

B.S., Department of Computer Science and Engineering

Sep 2011 – Dec 2014

Major: Computer ScienceCumulative GPA: 3.29/4.0

Work Experience

#### Pohang University of Science and Technology (POSTECH), Pohang, Korea

Postdoctoral Researcher

Mar 2024 - now

• Topic: Robotics.

• Supervisor: Prof. Minsu Cho

### Google Research, Grenoble, France

Student Researcher

July 2023 - Mar 2024

• Topic: Video understanding.

• Supervisor: Dr. Cordelia Schmid.

## Microsoft Research Asia, Beijing, China

Research Intern

Nov 2021 - Apr 2022

• Topic: Image representation learning.

• Supervisor: Dr. Chong Luo.

### Electronic Arts Korea Inc., Seoul, Korea

Associate Software Engineer

Jan 2018 - Mar 2018

• Developed and maintained FIFA Online 3 client/front-end UI modules.

ACADEMIC SERIVCES International Conference on Computer Vision (ICCV) 2019

Webmaster

Computer Vision and Pattern Recognition (CVPR) International Conference on Machine Learning (ICML) Neural Information Processing Systems (NeurIPS) European Conference on Computer Vision (ECCV) International Journal of Computer Vision (IJCV) International Conference on Computer Vision (ICCV)

Transactions on Pattern Analysis and Machine Intelligence (TPAMI)

Winter Conference on Computer Vision (WACV)

The Machine Vision Applications (MVA)

AAAI Conference on Artificial Intelligence (AAAI)

Regular reviewer

Honors & Awards

Best Ph.D Dissertation Award (2024) in CSE, GSAI, EE, CITE at POSTECH

BK21 outstanding paper awards For NeurIPS'22 and TPAMI'22 papers

Google PhD Fellowship Award 2022

Machine Perception, Speech Technology, and Computer Vision

Outstanding reviewer at CVPR 2022 Awarded to top 5% reviewers

POSTECHIAN Fellowship Award 2022 For outstanding research achievements

BK21 outstanding paper awards For ICCV'19, ECCV'20, and CVPR'21 papers

Qualcomm Innovation Fellowship Korea 2021 Convolutional Hough Matching Networks

Outstanding reviewer at ICCV 2021  $Awarded\ to\ top\ 5\%\ reviewers$ 

The 1st POSTECH research performance contest 2021 Fourth prize

Naver Ph.D. Fellowship 2020

Best term project & presentation award 2019 For outstanding in-class (3D Vision) project achievements

MILITARY OBLIGATION 59 Ammunition Supply Point & 102 Replacement Battalion, Chuncheon, Korea Rifleman Jun 2015 – Mar 2017

• Carried out obligatory duty of national defense.

Publications

All my papers are available from my website https://juhongm999.github.io/ and Google Scholar profile.<sup>1</sup>

**Juhong Min**, Shyamal Buch, Arsha Nagrani, Minsu Cho, Cordelia Schmid, "MoReVQA: Exploring Modular Reasoning Models for Video Question Answering," in *Proceedings of the IEEE Conf. on Computer Vision and Pattern Recognition* (CVPR), 2024.

Seungwook Kim, **Juhong Min**, Minsu Cho, "Efficient Semantic Matching with Hypercolumn Correlation," in *Proceedings of the IEEE Winter Conference on Computer Vision* (WACV), 2024. Oral presentation, best paper finalist.

**Juhong Min**, Seungwook Kim, Minsu Cho, "Convolutional Hough Matching Networks for Robust and Efficient Visual Correspondence," in *IEEE Transactions on Pattern Analysis and Machine Intelligence* (**TPAMI**), 2023.

**Juhong Min**, Yucheng Zhao, Chong Luo, Minsu Cho, "Peripheral Vision Transformer," in *Proceedings of the Annual Conference on Neural Information Processing Systems* (NeurIPS), 2022.

Seungwook Kim, **Juhong Min**, Minsu Cho, "TransforMatcher: Match-to-Match Attention for Semantic Correspondence," in *Proceedings of the IEEE Conf. on Computer Vision and Pattern Recognition* (CVPR), 2022.

Dahyun Kang, Heeseung Kwon, **Juhong Min**, Minsu Cho, "Relational Embedding for Few-Shot Classification," in *Proceedings of the IEEE International Conference on Computer Vision* (ICCV), 2021.

**Juhong Min**, Dahyun Kang, Minsu Cho, "Hypercorrelation Squeeze for Few-Shot Segmentation," in *Proceedings of the IEEE International Conference on Computer Vision* (ICCV), 2021.

Juhong Min, Minsu Cho, "Convolutional Hough Matching Networks," in *Proceedings of the IEEE Conf. on Computer Vision and Pattern Recognition* (CVPR), 2021. Oral presentation.

Jongmin Lee, Yoonwoo Jeong, Seungwook Kim, **Juhong Min**, Minsu Cho, "Learning to Distill Convolutional Features into Compact Local Descriptors," in *Proceedings of the IEEE Winter Conference on Computer Vision* (WACV), 2021.

**Juhong Min**, Jongmin Lee, Jean Ponce, Minsu Cho, "Learning to Compose Hypercolumns for Semantic Visual Correspondence," in *Proceedings of the IEEE European Conference on Computer Vision* (ECCV), 2020.

**Juhong Min**, Jongmin Lee, Jean Ponce, Minsu Cho, "SPair-71k: A Large-scale Benchmark for Semantic Correspondence," in arXiv preprint, 2019.

**Juhong Min**, Jongmin Lee, Jean Ponce, Minsu Cho, "Hyperpixel Flow: Semantic Correspondence with Multi-layer Neural Features," in *Proceedings of the IEEE International Conference on Computer Vision* (ICCV), 2019.

<sup>&</sup>lt;sup>1</sup>See my profile at: https://scholar.google.com/citations?user=261oVi4AAAAJ&hl=en.

Language Skills Korean(native), English(fluent)

Referees Available on request.