

Chicago Y. Park

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EDUCATION

2024 - Present	Washington University in St. Louis (WashU) PhD Candidate in Computer Science	St. Louis, MO
2022 - 2024	WashU BS in Computer Science <i>summa cum laude</i>	St. Louis, MO

RESEARCH EXPERIENCES

May 2024 - Aug 2024	Los Alamos National Laboratory Research Intern - Advisor: Dr. Brendt Wohlberg, Dr. Michael T. McCann, and Dr. Cristina Garcia-Cardona	Los Alamos, NM
Jul 2022 - May 2024	Computational Imaging Group (CIG) at WashU Undergrad. Researcher & 2023 Summer Research Intern - Advisor: Prof. Ulugbek S. Kamilov	St. Louis, MO
Jun 2020 - Dec 2021	Intelligent and Interaction Lab at Kookmin University Undergrad. Researcher & Lab Leader - Advisor: Prof. Sang Hun Lee	Seoul, South Korea

PUBLICATIONS

PREPRINT

1. **Chicago Park**, Yuyang Hu, Michael T. McCann, Cristina Garcia-Cardona, Brendt Wohlberg, and Ulugbek S. Kamilov. "Plug-and-Play Priors as a Score-Based Method," *arXiv:2412.11108*, 2024.
• TL;DR: This work reinterprets plug-and-play (PnP) methods as score-based approaches, enabling the use of score-based diffusion model (SBM) priors in PnP without retraining, allowing direct comparison with SBM-based reconstruction methods.
2. **Chicago Park**, Michael T. McCann, Cristina Garcia-Cardona, Brendt Wohlberg, and Ulugbek S. Kamilov. "Random Walks with Tweedie: A Unified Framework for Diffusion Models," *arXiv:2411.18702*, 2024.
• TL;DR: Paper proposes a simple, unified framework for diffusion models, built on random walks and Tweedie's formula, that simplifies theory, separates training from sampling, and enables flexible, effective algorithm design.
3. **Chicago Park***, Weijie Gan*, Zihao Zou, Yuyang Hu, Zhixin Sun and Ulugbek S. Kamilov. "A Structured Pruning Algorithm for Model-based Deep Learning," *arXiv:2311.02003*, 2023.
• TL;DR: SPADE presents the approach combining network pruning and fine-tuning to enhance the efficiency of model-based deep learning for imaging inverse problems.

CONFERENCE PAPERS

4. **Chicago Park***, Shirin Shoushtari*, Weijie Gan, and Ulugbek S. Kamilov. "Convergence of Nonconvex PNP-ADMM with MMSE Denoisers," *2023 IEEE International Workshop on Computational Advances in Multi-Sensor Adaptive Processing (CAMSAP)*, 2023, in press. **[Best Student Paper Award Finalist]**
• TL;DR: Paper proposes theoretical and experimental evidence for the effective use of expansive CNN denoisers in the PnP-ADMM framework to solve convex or non-convex imaging inverse problems.

ABSTRACT PAPERS POSTER PRESENTATIONS

5. **Young Il Park**, Hyun Jae Lee and Sang Hun Lee*, “Estimation of Lateral Distances between Vehicles and Lane Markers Using Sensor Fusion and Deep Neural Networks,” *The Korean Society of Automotive Engineers 2021 annual autumn conference and exhibition*, Yeosu, Nov 17-20, 2021.
- TL;DR: Paper proposes a new metric, lateral distance between vehicles and lanes, and introduces a deep neural network-based sensor fusion technique to measure it for autonomous vehicles.

ACADEMIC SERVICES

JOURNAL REVIEWERS FOR

Oct 2024 **IEEE Transactions on Computational Imaging (TCI)**

CONFERENCE REVIEWERS FOR

Oct 2024 **IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP)**

HONORS AND AWARDS

Apr 2024	Ernest. D Weiss Senior Award Issued by Department of Computer Science and Engineering, WashU	St. Louis, MO
2024 - 2029	Dean’s Select PhD Fellowship Issued by WashU	St. Louis, MO
Dec 2023	Student Travel Award Issued by 2023 IEEE CAMSAP	Hacienda Belén, Costa Rica
Dec 2023	Best Student Paper Award Finalist Issued by 2023 IEEE CAMSAP	Hacienda Belén, Costa Rica
Aug 2022 - May 2024	Dean’s List Issued by WashU	St. Louis, MO
2021	Honorable Judge Award, 9th Cloud Programming World Cup Issued by Forum 8	Tokyo, Japan
2020 - 2022	Full Silla Scholarship Issued by Sillaholdings	Seoul, South Korea

PROFESSIONAL SOCIETIES

Sep 2024 - present	Society for Industrial and Applied Mathematics(SIAM) Graduate Student Member
Apr 2024 - present	<i>Tau Beta Pi</i> Engineering Honor Society
Oct 2023 - present	Institute of Electrical and Electronics Engineers(IEEE) Student Member

TEACHING EXPERIENCES

Jan 2023 - Dec 2023	CSE 247 Data Structure and Algorithm, WashU Teaching Assistant	St. Louis, MO
Sep 2021 - Dec 2021	MyLab Study II, Project-based Course, Kookmin University Assistant Instructor	Seoul, South Korea
Mar 2021 - Jun 2021	Interdisciplinary Capstone Design I, Project-based Course, Kookmin University Assistant Instructor	Seoul, South Korea

MILITARY SERVICE

Feb 2017 - Nov 2018	Republic of Korea Army Sergeant & Company Signaller & Barber	Gangwon, South Korea
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FEBRUARY 8, 2025