

Chanyoung Park

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Research Interests

AI-based Autonomous Driving, Intelligent Robotic Manipulation, Reinforcement Learning, Multi-Agent Systems, and Visuomotor Policy Learning

Education

Korea Advanced Institute of Science and Technology (KAIST)

Daejeon, Republic of Korea

M.S. in Computer Science

Sep. 2025 - Present

Ajou University

Suwon, Republic of Korea

B.S. in Department of Electrical and Computer Engineering

Mar. 2019 - Aug. 2022, Early Graduation

Publications

Conferences

1. S. Park, H. Feng, W. J. Yun, **C. Park**, Y. K. Lee, S. Jung, J. Kim, "EQuaTE: Efficient Quantum Train Engine Design and Demonstration for Dynamic Software Analysis," **IEEE International Conference on Distributed Computing Systems (ICDCS)**, Jul. 2023.
2. **C. Park**, H. Lee, W. J. Yun, S. Park, S. Jung, J. Kim, "Coordinated Multi-Agent Reinforcement Learning for Unmanned Aerial Vehicle Swarms in Autonomous Mobile Access Applications," **IEEE International Conference on Distributed Computing Systems (ICDCS)**, Jul. 2023.
3. **C. Park**, S. Park, G. S. Kim, S. Jung, J.-H. Kim, J. Kim, "Multi-Agent Deep Reinforcement Learning for Efficient Passenger Delivery in Urban Air Mobility," **IEEE International Conference on Communications (ICC)**, May-Jun. 2023.
4. G. S. Kim, H. Lee, **C. Park**, S. Jung, J.-H. Kim, J. Kim, "Hybrid MAC for Military UAV Networks," **IEEE International Conference on Information Networking (ICOIN)**, Jan. 2023.

SCI Journals

1. S. Park, **C. Park**, S. Jung, J. Kim, "Adaptive Quantum Federated Learning for Autonomous Surveillance Multi-Drone Networks," **IEEE Transactions on Intelligent Vehicles**, 10(11): 5055-5059, Nov. 2025.
2. S. Park, J. Chung, **C. Park**, S. Jung, M. Choi, S. Cho, J. Kim, "Joint Quantum Reinforcement Learning and Stabilized Control for Spatio-Temporal Coordination in Metaverse," **IEEE Transactions on Mobile Computing**, 23(11): 12410-12427, Nov. 2024.
3. S. Park, **C. Park**, S. Jung, M. Choi, J. Kim, "Age-of-Information Aware Caching and Delivery for Infrastructure-Assisted Connected Vehicles," **IEEE Transactions on Vehicular Technology**, 73(7): 10681-10696, Jul. 2024.
4. J.-H. Lee, **C. Park**, S. Park, A. F. Molisch, "Handover Protocol Learning for LEO Satellite Networks: Access Delay and Collision Minimization," **IEEE Transactions on Wireless Communications**, 23(7): 7624-7637, Jul. 2024.
5. S. Park, **C. Park**, J. Kim, "Learning-based Cooperative Mobility Control for Autonomous Drone-Delivery," **IEEE Transactions on Vehicular Technology**, 73(4): 4870-7885, Apr. 2024.
6. S. Park, J. P. Kim, **C. Park**, S. Jung, J. Kim, "Quantum Multi-Agent Reinforcement Learning for Autonomous Mobility Cooperation," **IEEE Communications Magazine**, 62(6), Jun. 2024.
7. **C. Park**, W. J. Yun, J. P. Kim, T. K. Rodrigues, S. Park, S. Jung, J. Kim, "Quantum Multi-Agent Actor-Critic Networks for Cooperative Mobile Access in Multi-UAV Systems," **IEEE Internet of Things Journal**, 10(22): 20033-20048, Nov. 2023.
8. S. Jung, **C. Park**, M. Levorato, J.-H. Kim, J. Kim, "Two-Stage Self-Adaptive Task Outsourcing Decision Making for Edge-Assisted Multi-UAV Networks," **IEEE Transactions on Vehicular Technology**, 72(11): 14889-14905, Nov. 2023.
9. S. Park, H. Lee, **C. Park**, S. Jung, M. Choi, J. Kim, "Two Tales of Platoon Intelligence for Autonomous Mobility Control: Enabling Deep Learning Recipes," **ETRI Journal (Wiley)**, 45(5): 735-745, Oct. 2023.
10. S. Park, H. Feng, **C. Park**, Y. K. Lee, S. Jung, J. Kim, "EQuaTE: Efficient Quantum Train Engine for Run-Time Dynamic Analysis and Visual Feedback in Autonomous Driving," **IEEE Internet Computing**, 27(5): 24-31, Sep.-Oct. 2023.
11. **C. Park**, G. S. Kim, S. Park, S. Jung, J. Kim, "Multi-Agent Reinforcement Learning for Cooperative Air Transportation Services in City-Wide Autonomous Urban Air Mobility," **IEEE Transactions on Intelligent Vehicles**, 8(8): 4016-4030, Aug. 2023.
12. S. Park, **C. Park**, S. Jung, J.-H. Kim, J. Kim, "Workload-Aware Scheduling using Markov Decision Process for Infrastructure-Assisted Learning-Based Multi-UAV Surveillance Networks," **IEEE Access (IEEE Vehicular Technology Society Section)**, 11: 16533-16548, Feb. 2023.

Book Chapter

1. *Fundamentals of 6G Communications and Networking*, Springer, 2023.
 - Ch. 20. Network Disaggregation (S. Park, **C. Park**, J. P. Kim, M. Choi, J. Kim)
 - Ch. 22. AI-Native Network Algorithms and Architectures (H. Lee, S. Park, H. Baek, **C. Park**, S. Son, J. Park, J. Kim)
 - Ch. 28. Convergence of 6G and Wi-Fi Networks (H. Lee, S. Park, M. Yoo, **C. Park**, H. Baek, J. Kim)

Certification and License

1. Big Data Analysis Engineer, Korea Data Agency (K-DATA), BAE-009005696, Dec. 2024.
2. Engineer Information Processing, Ministry of Science and ICT (MSIT), 25201260212P, Jun. 2025.

Military Service

Soldier, Artillery

Oct. 2023 - Apr. 2025

Completed a 6-week basic military training and served as an artillery for 17 months.

Academic Activities

Paper Review

AI/Communications/Networks: IEEE TVT ('22-'23), IEEE TMLCN ('22-'23)

Invited Talk

- "1st Workshop on Recent Trends in Reinforcement Learning Technology," Open Standards & ICT Association (OSIA), Seoul, Korea (Mar. 3, 2023, 3.5-hour talk)
- "Unity-based Reinforcement Learning Algorithm Development and Simulation," Korean Institute of Communications and Information Sciences (KICS), Korea (Feb. 14, 2023, 2.5-hour talk)

Technical Skills

Advanced: Python (PyTorch, Tensorflow, Numpy, Pandas, Matplotlib, TorchQuantum), Matlab

Moderate: C, LaTeX

Novice: C#, Java, Unity, SQL, Docker

Teaching

Future Mobility Technology, Electrical Engineering, Korea University

Mar. 2023 - Jun. 2023

Teaching Assistant

Seoul, Korea

Guided students on future mobility technologies and provided feedback and improvements on their report writing.

Computer Languages Lab, Electrical Engineering, Korea University

Sep. 2022 - Dec. 2022

Teaching Assistant

Seoul, Korea

Provided guidance and instruction during coding practical sessions focused on C and Python programming languages.

Electromagnetism, Electrical and Computer Engineering, Ajou University

Mar. 2022 - Jun. 2022

Teaching Assistant

Suwon, Korea

Managed academic performance through lecture assistance, assignment oversight, and exam grading.