

Junseo(Jason) Kim

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Education

[†]Note: Includes 18 months of military service

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| Delft University of Technology (TU Delft) <i>Msc in Robotics</i> | 09/2024 – Present <i>Delft, Netherlands</i> |
| Toronto Metropolitan University (Formerly Ryerson University) <i>BEng in Mechanical Engineering - Mechatronics (With Distinction)</i> | 09/2018 – 06/2024 [†] <i>Toronto, ON, Canada</i> |

Research Experience

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| Bot Intelligence Group (BIG) <i>Carnegie Mellon University, Robotics Institute - Supervised by Dr. Jean Oh</i> | 08/2025 – Present <i>Pittsburgh, PA, United States</i> |
| Autonomous Multi-Robots Lab <i>Delft University of Technology - Supervised by Dr. Javier Alonso-Mora</i> | 10/2024 – Present <i>Delft, Netherlands</i> |
| The Robotics and Computer Vision Lab (RCVL) <i>Toronto Metropolitan University - Supervised by Dr. Sajad Saeedi</i> | 04/2023 – 08/2024 <i>Toronto, Canada</i> |
| Geometric Computing Lab <i>Toronto Metropolitan University - Supervised by Dr. Yeganeh Bahoo</i> | 05/2023 – 08/2024 <i>Toronto, Canada</i> |
| Korea Additive Manufacturing Innovation Center (KAMIC) <i>Korea Institute of Industrial Technology (KITECH) - Supervised by Dr. Hyub Lee</i> | 07/2022 – 08/2022 <i>Siheung, South Korea</i> |

Publications

*Note: Equal Contribution, P: Preprint, C: Conference, J: Journal

- [J1] M. Lisondra*, **J.Kim***, G.Shimoda, K.Zareinia, and S. Saeedi *TCB-VIO: Tightly-Coupled Focal-Plane Binary-Enhanced Visual Inertial Odometry*. *IEEE Robotics and Automation Letters*, 2025, pp. 1-8, doi:10.1109/LRA.2025.3619774.
- [P2] **J.Kim**, M.Lisondra, Y.Bahoo, and S. Saeedi. *Inverse k-visibility for RSSI-based Indoor Geometric Mapping*. <https://arxiv.org/abs/2408.07757> (Under Review)
- [P1] I.Mehta, **J.Kim**, S.Taghipour, and S. Saeedi. *M³RS: Multi-agent, Multi-objective, and Multi-mode Routing and Scheduling*. <https://arxiv.org/abs/2403.16275> (Under Review)
- [C2] **J.Kim**, J. Zalat, Y. Bahoo, and S. Saeedi. *Structure from WiFi (SfW): RSSI-based Geometric Mapping of Indoor Environments*. *2024 American Control Conference (ACC)*, Toronto, ON, Canada, 2024, pp. 259-264, doi: 10.23919/ACC60939.2024.10644833.
- [C1] M. Lisondra*, **J.Kim***, R. Murai, K.Zareinia, and S. Saeedi. "Visual Inertial Odometry using Focal Plane Binary Features (BIT-VIO)". *2024 IEEE International Conference on Robotics and Automation (ICRA)*, Yokohama, Japan, 2024, pp. 1661-1668, doi: 10.1109/ICRA57147.2024.10610888.

Interests

Robotics, Robot Learning, Generative AI, Reinforcement Learning, Sim2Real, Physics Simulation, Visual Language action models

Other Experience

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| Visiting Research Scholar | 8/2025 – 7/2026 |
| <i>Carnegie Mellon University</i> | <i>Pittsburgh, PA, United States</i> |
| Board of Studies - Master Robotics Program | 10/2024 – 10/2025 |
| <i>Delft University of Technology</i> | <i>Delft, Netherlands</i> |
| Project Sapience (Cooperative Drone Competition) - TU Delft Team | 10/2024 – 07/2025 |
| <i>NATO Science for Peace and Security Program - Supervised by Dr. Ewoud Smeur</i> | <i>Delft, Netherlands</i> |
| Automobile Mechanics | 12/2020 – 06/2022 |
| <i>Republic of Korea Military Army</i> | <i>Cheolwon, South Korea</i> |
| Association of Korean-Canadian Scientists and Engineers - President | 09/2019 – 08/2020 |
| <i>Toronto Metropolitan University Chapter(YG)</i> | <i>Toronto, Canada</i> |

Awards & Honors

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| Justus and Louise van Effen Research Grant | 2025 |
| <i>Delft University of Technology - Carnegie Mellon University</i> | |
| Justus and Louise van Effen Excellence Scholarship - Fully Funded | 2024 - 2026 |
| <i>Delft University of Technology</i> | |
| Gwangyang Municipal Baegun Scholarship | 2023 |
| <i>Gwangyang city Baegun Scholarship Association</i> | |
| Korean Canadian Scientists Scholarship Foundation Award | 2023 |
| <i>The Association of Korean-Canadian Scientists and Engineers</i> | |
| UIRO(Undergraduate Interdisciplinary Research Opportunities) Award | 2023 |
| <i>Toronto Metropolitan University - Co-Supervised by Dr.Sajad Saeedi and Dr. Yeganeh Bahoo</i> | |
| The Norman ESCH Award Stage 1 | 2023 |
| <i>Toronto Metropolitan University - Supervised by Dr. ChungHyuk Lee</i> | |
| Dean's List | 2019 - 2020, 2022-2024 |
| <i>Toronto Metropolitan University</i> | |
| Solidworks certificate of Mechanical Design | 2019 |
| <i>Dassault Systems</i> | |

Service - Reviewer

International Conference on Robotics and Automation (ICRA): 2026
International Conference on Intelligent Robots and Systems (IROS): 2024

Relevant Skills

Programming: Python, C / C++
Language: English, Korean, Mandarin
Other skills: ROS 1/2, Linux, LaTex