


Taeyoon Kim

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 Taeyoon Kim |  taeraemon |

Seoul, Republic of Korea

EXPERIENCE

• Perigee Aerospace

Engineer, Flight Control Team (Dynamics & Control)

Feb 2023 - Jan 2024

Daejeon, South Korea

- Developed avionics firmware for the suborbital launch vehicle BW0.4
- Developed inspection software for BW0.4
- Developed an IRIG 313-01 compliant flight termination system (FTS) for BW0.4
- Performed HILS, WDR, and static fire tests for BW0.4

• S.O.X

Freelancer

May 2021 - Aug 2022

Seoul, South Korea

- Participated in the development of indoor localization using GPR
- Developed a mobile app for collecting WiFi, BLE, and LTE signals
- Developed an LTE-based signal collecting tag

EDUCATION

• Seoul National University

M.S. in Intelligent Aerospace Systems (Interdisciplinary Program)

Mar 2024 - Present

Seoul, South Korea

- GPA: 3.89/4.3

• Kwangwoon University

B.S. in Electronic and Communications Engineering

Mar 2019 - Feb 2023

Seoul, South Korea

- GPA: 3.61/4.5

PROJECTS

• Integrated Navigation Systems for Precision Landing of Reusable Launch Vehicles

Tools: MATLAB, Python, C/C++, ROS2, Gazebo

Jan 2025 - Present

Hanwha Aerospace

- Developing integrated navigation algorithms to achieve high altitude accuracy during the landing phase of reusable launch vehicles

• Artificial Intelligence Research Laboratory for Flight Control

Tools: MATLAB, Python

Feb 2024 - Present

Agency for Defense Development

- Conducted research on methodologies for selecting and detecting valid targets in infrared imagery, focusing on reliable extraction of meaningful target data
- Developed AI-based tracking algorithms to enable robust and accurate tracking of detected targets in infrared video

PATENTS AND PUBLICATIONS

C=CONFERENCE, J=JOURNAL, P=PATENT, S=IN SUBMISSION, T=THESIS

- [C.3] T. Y. Kim, C. G. Park (2025). **Performance Evaluation of Infrared Target Tracking Method in Virtual Environment**. In *Proceedings of the KSAS 2025 Spring Conference*, Korean Society for Aeronautical and Space Sciences (KSAS), Paper No. 1075–1076. 2025.
- [C.2] T. Y. Kim and C. G. Park (2024). **Performance Analysis of Siamese Tracker Through Preprocessing of Infrared Images**. In *2025 17th International Conference on Knowledge and Smart Technology (KST)*, Bangkok, Thailand, 2025, pp. 1-4, doi: 10.1109/KST65016.2025.11003338.
- [C.1] T. Y. Kim, I. H. Lee, C. G. Park (2024). **Infrared Target Tracking Method Based on Siamese Network with Template Update**. In *Proceedings of the KSAS 2024 Fall Conference*, Korean Society for Aeronautical and Space Sciences (KSAS), Paper No. 1292–1293. 2024.

SKILLS

- **Programming Languages:** C, C++, Python, MATLAB, Simulink, Verilog, Assembly
- **Libraries:** ROS1, ROS2, PyTorch, PyQt
- **Embedded Systems:** STM32, Altera, Arduino
- **Hardware design:** EasyEDA, KiCad, Altium, Orcad(Virtuoso, Hspice, Capture, PSpice), Inventor
- **Simulation:** Gazebo, Unity

HONORS AND AWARDS

- **Grand Prize - 22nd Korea Robot Aircraft Competition (AAM Tech Challenge)** *Oct 2024*
Ministry of Trade, Industry and Energy (MOTIE), Republic of Korea
 - Awarded the **grand prize** as a member of the SNU team “*Bulnabi*” for outstanding performance in UAV development and innovation.

CERTIFICATIONS

- Class 3 Amateur Radio Operator (Morse Code) *Jun 2020*

REFERENCES

1. **Chan Gook Park**
Professor, Department of Aerospace Engineering
Seoul National University
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Relationship: Advisor during M.S. program