Won Yong Ha

wh784@nyu.edu | +1 646 719 7255
431 E 57TH St, New York City, NY

TECHNICAL SKILLS

Languages: Python, Java, C/C++, C#
Web Development: HTML, Javascript

EDUCATION

New York University, Brooklyn, NY, USA — September 2019 – Present
Doctor of Philosophy in Electronic and Computer Engineering — GPA: 3.61/4.00
Advisor: Professor Zhong-Ping Jiang

Cornell University, Ithaca, NY, USA — January 2017 – May 2019
Master of Engineering in Systems Engineering (Concentration: Software Engineering)

Indiana University, Bloomington, IN, USA — August 2014 – December 2016
Bachelor of Science in Computer Science (Concentration: Programming Languages)
Minor: Mathematics

PROFESSIONAL EXPERIENCE

Binblur Inc, Seoul, Republic of Korea — January 2023 – August 2023, May 2024 - Present
Co-Founder (CTO) and Researcher

- Developed a web-based warehouse management system (WMS) connected to the autonomous storage system.
- Conducted research on RFID technology for a product validation system and filed two patent applications.

Korea Army Consolidated Supply Depot, Sejong, Republic of Korea — April 2021 – October 2022
Military Science Researcher

- Researched and developed a storage optimization webpage using HTML/CSS and Javascript.
- Used genetic algorithm to optimize warehouse storage and published the Korea Military Science Journal research paper.
- Won first place in the Korean military science contest 2022 and introduced on press.

RESEARCH AND TEACHING

Control and Network Laboratory at New York University, Brooklyn, NY, USA
Research Assistant
Transit Experimental Robotics — November 2022 – Present

- Leading a team of two Ph.D. and two master students and achieved real-world lane-changing experimental study.
- Building an experimental car robot to validate the lane-changing algorithm.
- Published a conference paper at the 26th IEEE International Conference on Intelligent Transportation Systems (ITSC 2023, ITSC 2024-accepted).

Transit Routing Optimization — September 2019 – December 2020

- Researched and developed a system for warehouse scheduling optimization considering the collision between AGVs.
- Published a conference paper at the 20th IEEE International Conference on Advanced Robotics (ICAR 2021).
- Published a conference paper at the 19th IEEE International Conference on Automation Science and Engineering (CASE 2023).

New York University, Brooklyn, NY, USA — September 2019 – Present
Graduate Teaching Assistant

- Assisting students and cooperating lectures with professors and developing sample questions and holding office hours for extra help.
- ECE-GY6233 - System Optimization Methods (30-40 Students)
- ECE-GY5253 - Applied Matrix Theory (150-250 Students)
- EE4144 –Introduction to Embedded Design (50-60 Students)
- CS1114 - Introduction to Programming (20-30 Students)

PUBLICATIONS

Won Yong Ha, et al. " Learning-Based State Estimation for Automated Lane-Changing," 2024 IEEE 27th International Conference on Intelligent Transportation Systems (ITSC), IEEE, 2024. (ACCEPTED)

Won Yong Ha, et al. "Automated Lane Changing through Learning-Based Control: An Experimental Study," 2023 IEEE 26th International Conference on Intelligent Transportation Systems (ITSC), IEEE, 2023.

Won Yong Ha, and Zhong-Ping Jiang. "Optimization of Cube Storage Warehouse Scheduling Using Genetic Algorithms," 2023 IEEE 19th International Conference on Automation Science and Engineering (CASE).

Won Yong Ha, Ki-yang Cho, and Chung Sik Han. "Application of Genetic Algorithms to Optimize the Storage Location of Products in Military Logistics," Journal of the Korea Institute of Military Science and Technology 25.1 (2022): 108-116.

Won Yong Ha, et al. "Optimizing the Product Locations in Automated Cube Storage Warehouse Using an Enhanced Genetic Algorithm," International Conference on Robot Intelligence Technology and Applications. Springer, Cham, 2022.

Won Yong Ha, et al. "Optimizing the Location of Products in a Warehouse Using Genetic Algorithms," 2021 International Conference on Information and Communication Technology Convergence (ICTC). IEEE, 2021.

Won Yong Ha, Leilei Cui, and Zhong-Ping Jiang. "A Warehouse Scheduling Using Genetic Algorithm and Collision Index," 2021 20th International Conference on Advanced Robotics (ICAR). IEEE, 2021.

ACTIVITIES AND HONORS

NYU Tandon ECE 2024 Spring Best Poster Award — Spring 2024
1st Place on Military Science Contest — Spring 2022
Six Sigma Certification — Fall 2017
CompTia IT Fundamentals Certifications — Summer 2016
Oracle Certified Professional, Java SE 6 Programmer — Spring 2015
Oracle Certified Professional, Java EE 5 Web Component Developer — Spring 2015