

# TAEWOON KIM


AI Researcher & Engineer



 taewoon.kim


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## SUMMARY

I love diving into AI stuff! I'm both a researcher and engineer in the AI world. It's like finding the sweet spot between brainstorming new ideas and making them actually work in real life. I believe figuring out and improving artificial general intelligence is super important for all of us. I'm all about open-sourcing projects because it's the best way to make AI better together.

## SKILLS AND INTERESTS

**Research:** Artificial General Intelligence

**Languages:** Python, C++, C, Java, JavaScript, Shell Script, HTML, CSS

**Frameworks /Libraries:** Pytorch, TensorFlow, OpenCV, NumPy, SciPy, Flask, Jupyter Notebooks

**Platforms:** Docker, Linux, GCP, AWS

## PROJECTS

AI	<b>Large Language Models</b> Large language models	<a href="https://taewoon.kim/projects/llm.html">https://taewoon.kim/projects/llm.html</a>
AI	<b>Computer Vision</b> Computer Vision	<a href="https://taewoon.kim/projects/computer-vision.html">https://taewoon.kim/projects/computer-vision.html</a>
AI	<b>A Machine With Human-Like Memory Systems</b> A Machine With Human-Like Memory Systems	<a href="https://taewoon.kim/projects/human-memory.html">https://taewoon.kim/projects/human-memory.html</a>
AI	<b>Tracking Glass Bottles With Letter in the Sea</b> Tracking Glass Bottles With Letter in the Sea	<a href="https://taewoon.kim/projects/glass-track.html">https://taewoon.kim/projects/glass-track.html</a>

## EDUCATION

2020 - 2024	<b>PhD. Artificial Intelligence, Vrije Universiteit Amsterdam, the Netherlands</b> Titled "A Machine With Human-Like Memory Systems". This machine is equipped with an external memory system, modeled with a knowledge graph, and uses reinforcement learning to learn essential human skills, such as managing memory, reasoning, exploring, etc.
2015 - 2018	<b>M.Sc. Computer Science, Hamburg University of Technology, Germany</b> Focused on deep learning and computer vision. Wrote M.Sc. thesis "One Shot Learning for Object Recognition in Pick and Insert Applications" in collaboration with ABB.
2008 - 2015	<b>B.Sc. Electrical Engineering, Yonsei University, South Korea</b> Focused on digital signal processing and computer vision. Wrote B.Sc. thesis "Obstacle detection for the blind in C++ with OpenCV". The lengthened period of study includes 2 years of mandatory social service.

## EXPERIENCE

2020 - 2024	<b>AI Researcher, Vrije Universiteit Amsterdam, the Netherlands</b> <ul style="list-style-type: none"><li>• Part of the PhD program.</li><li>• Carried out research in AI encompassing NLP, Computer Vision, Reinforcement Learning, Knowledge Graphs, etc., most of which can be found on my GitHub and Google Scholar.</li><li>• Taught computer programming courses, e.g., Python, and AI courses, e.g., board games with search algorithms and machine learning.</li><li>• Supervised B.Sc. and M.Sc. theses.</li></ul>
2018 - 2020	<b>Computer Vision Engineer, Nect, Germany</b> <ul style="list-style-type: none"><li>• Worked with machine learning (mostly deep learning) to improve ID card and self verification processes.</li><li>• Mostly dealt with speech, image, and video data.</li><li>• Working at a start-up has enabled me to work closely with DevOps and Front-end developers and to better understand the big picture of AI companies.</li></ul>

2018

**Intern and M.Sc. Thesis Student, ABB, Germany**

- Applied robot vision with a RGBD camera.
- Trained computer vision deep learning models, e.g., ResNet, to extract features relevant for robotic pick and place skills.
- Used both RobotStudio and Robot Web Services based on RESTful APIs to interact with both virtual and real robot controllers.