

# Hojun (Eric) Choi

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## RESEARCH INTERESTS

Recommender Systems • Model Optimization • Deep Learning • Hyper-scale AI

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## SKILLS

### PROGRAMMING LANGUAGES

- Python, C, SQL, Java, R, C++, C#, JavaScript

### FRAMEWORKS

- PyTorch, TensorFlow, Keras
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## EDUCATION

### Seoul National University

M.S./Ph.D. in Artificial Intelligence

| 2023-current

Advisor | [Prof. U. Kang](#)

### University of Wisconsin, Madison

B.S. in Computer Science and Data Science

| Dec 2022

Advisor | [Dr. Michael Radloff](#) and [Dr. Sara Rodock](#)

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## HONORS AND AWARDS

### 2022 LG Research Hackathon

| 2022

Ranked top 10% on hackathon with the topic of predicting the antenna performance of autonomous sensors

### 2022 Hatathon Nomination, Undergraduate Research Lab (UPL)

| 2022

Built a human-friendly interactable internet history search chrome extension

### Dean's List, All semesters in attendance

| 2017-2022

The highest level of academic achievement

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## PROFESSIONAL EXPERIENCE

### UNIVERSITY OF WISCONSIN – MADISON | UNDERGRAD. AI RESEARCHER

2022-Current | MADISON, WISCONSIN

MENTOR: [Prof. Ran](#)

- Simulated the operational life cycle of the CADs in the CARLA environment.
- Validated the developed algorithms of collaborative automated driving.
- Developed and test new models in the customized environment and the CARLA environment.

### UNIVERSITY OF WISCONSIN – MADISON | ACADEMIC MENTOR

2021-Current | MADISON, WISCONSIN

EMPLOYER: [Masiee Her](#)

- Assisted my mentee by giving academic advice, sharing resources, and caring about my students' success.
- Honed my skills in major domain areas of AI; Linear Algebra, AI, HCI, C Programming, etc.

- Designed and implemented automated data mapping tools for ERP platform with multi-language contents.
- Provided maintenance services on the company's website and ERP platform.
- Developed time clock systems to check employees' attendance.

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## PROJECTS

<b><u>Object Detection for Autonomous Driving using DETection TRansformer</u></b>	2022
Implemented end-to-end detection techniques for large objects in the CARLA environment.	
<b><u>Database Development</u></b>	2022
Understanding of core techniques of DBMS & Building a database structure on real-world problems using MySQL.	
<b><u>CARLA Research Team Project</u></b>	2022
Built a complete workflow of Sensing-Perception Group CADS System using CARLA simulator.	
<b><u>AI Software and Applications</u></b>	2022
A full list of my AI projects (may need to be updated).	
<b><u>Visitory – Hatathon</u></b>	2022
Built a human-friendly interactable internet history search chrome extension.	
<b><u>Introduction to Operating Systems</u></b>	2022
MapReduce, memory encryption, file system, lottery scheduler, shell, and xv6 kernel threads.	
<b><u>Data Modelings with Python &amp; R</u></b>	2022
Data visualization, version control, A/B testing, classification, clustering, optimization, simulation techniques, etc.	
<b><u>Human-Computer Interaction Report Papers</u></b>	2021
Investigated the problem domain of three different settings.	
<b><u>Cardiovascular Disease Risk Factor Analysis</u></b>	2021
Analyzed causal relationships among actors using statistical models & visualized the results through graphs in R.	
<b><u>COVID-19 Self-Checker</u></b>	2021
A simple self-diagnostic analysis software for COVID-19 symptoms.	
<b><u>A Free Website for Short-Term Memory Testing</u></b>	2020
Implemented multi-threaded timer in back-end and parsed data transfer among pages through RestAPI.	
<b><u>Time Clock System</u></b>	2019
A window software for employee' attendance tracker.	
<b><u>Unity Games Developments</u></b>	2018
Designed game architectures and optimized graphics performance by batching game objects with hierarchy.	
<b><u>Automation System Development</u></b>	2018
Analyzed patterns of data assignment by component in the company's platform and developed software for multilingual tasks.	

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## TEACHING EXPERIENCE

- **Private Tutoring**

Course	Linear Algebra
Instructor	<a href="#">Hojun (Eric) Choi</a>
Location	Remote ( <a href="#">Kimstudy</a> )
Period	2022-current

- **Academic Mentor**

Course	Introduction to Human Computer Interactions (CS 570)
Instructor	<a href="#">Prof. Jacob Thebault-Spieker</a>
Location	University of Wisconsin, Madison
Semester	Fall 2022

- **Academic Mentor**

Course	Introduction to Artificial Intelligence (CS 540)
Instructor	<a href="#">Prof. Jerry Zhu</a>
Location	University of Wisconsin, Madison
Semester	Fall 2022

- **Academic Mentor**

Course	Elementary Matrix and Linear Algebra (MATH 340)
Instructor	<a href="#">Prof. Alexander Hanhart</a>
Location	University of Wisconsin, Madison
Semester	Fall 2021, Spring 2022

- **Academic Mentor**

Course	Introduction to Computer Systems (CS 354)
Instructor	<a href="#">Prof. Michael Doescher</a>
Location	University of Wisconsin, Madison
Semester	Spring 2022

- **Academic Mentor**

Course	Programming III (CS 400)
Instructor	<a href="#">Prof. Gary Dahl</a>
Location	University of Wisconsin, Madison
Semester	Spring 2022

- **Academic Mentor**

Course	Introduction to Computer Engineering (CS 252)
Instructor	<a href="#">Prof. James Skrentny</a>
Location	University of Wisconsin, Madison
Semester	Fall 2021

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## MENTORED STUDENTS

- Sharmin Akter Chowdhury | 2021-2022
 

Institution	University of Wisconsin, Madison
Degree Level	Undergraduate
Major	Computer Science
- Jeremiah Dominick Lipscomb | 2022
 

Institution	University of Wisconsin, Madison
Degree Level	Undergraduate
Major	Computer Science
- Isaac Odeyoin | 2021
 

Institution	University of Wisconsin, Madison
Degree Level	Undergraduate
Major	Computer Science

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## PROFESSIONAL ACTIVITIES

### CONFERENCE REVIEWS

ICLR, NeurIPS, CVPR, arXiv, ICPR, AAAI, etc.	2021-current
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### ONLINE FREELANCE ENGLISH TRANSLATION EXPERT, NAVER KNOWLEDGE IN

- Equipped with professional Korean-to-English translation expertise | 2016-current

### LG TECHNICAL CERTIFICATE PROGRAM IN MACHINE LEARNING, LG RESEARCH

- Absorbed the state-of-the-art AI technology of autonomous driving and radar sensors | 2022

### NLP CERTIFICATION PROGRAM, SEOUL ICT INNOVATION SQUARE

- Equipped with core knowledge and expertise in the in-demand field of NLP | 2022

### AI ENGINEERING PROFESSIONAL CERTIFICATE, ABLEARN AND SEONGNAM INDUSTRY

- Online Certified AI ENGINEERING Certification Training | 2022

**CERTIFICATE OF COMPLETION: MACHINE LEARNING A-Z: HANDS-ON PYTHON AND R**

- Learned to create ML algorithms in Python and R from two Data Science experts | 2022

**CERTIFICATE OF COMPLETION: INTENSIVE ENGLISH LANGUAGE PROGRAM**

- Completed the IELP with the highest level at the University at Albany - SUNY | 2016

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**ORGANIZATION**

**CAVH GROUP, UW-MADISON**

- Graduate Student Research Group in the Depart. of Civil and Environmental Engineering | 2022

**ARTIFICIAL INTELLIGENCE CLUB, UW-MADISON**

- A project-based organization committed to bringing together students with an interest in AI | 2022

**UNIVERSITY WISCONSIN UNDERGRADUATE PROJECT LAB**

- UW Madison Computer Science Undergraduate Research Membership | 2022

**STUDENT SOFTWARE DEVELOPMENT CLUB**

- UW Madison Student Software Development Membership | 2021