

# Tsz-Chiu Au



## About me

I am a computer scientist who is eager to devise algorithms and design AI and robotic systems with interesting properties that enable novel applications.

## Research Interests

multiagent systems  
multirobot systems  
automated planning  
motion planning  
autonomous vehicles  
autonomous drones  
transportation systems  
robot security systems  
logistics systems  
etc.

## Hobby

science and math  
web development  
watching movies  
hiking

## Teaching Experience

artificial intelligence  
machine learning  
deep learning  
autonomous robots  
data structures  
C++ programming  
web technology

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in Tsz-Chiu Au

chiuau

## SHORT RESUMÉ

2012–2023

**Assistant Professor / Associate Professor**

COMPUTER SCIENCE AND ENGINEERING · UNIST 

Founded the Agents and Robotic Transportation Lab, which focuses on artificial intelligence, robotics, and transportation research.



2008–2012

**Postdoctoral Fellow**

COMPUTER SCIENCE · The University of Texas at Austin 


Took part in research projects on autonomous traffic management for autonomous vehicles.



## DEGREES

2008


**Ph.D., Computer Science**

University of Maryland  
College Park 



2002

**M.S., Computer Science**

University of Maryland  
College Park 



1997

**B.Eng., Computer Science**

Hong Kong University of  
Science and Technology 



## PROGRAMMING

C++23



Python



Shell Scripts



Java



L<sup>A</sup>T<sub>E</sub>X




Javascript



## RESEARCH GRANTS

2022–2027


**Optimal Design of High-Density Parking Lots for Autonomous and Semi-Autonomous Vehicles**

PI · National Research Foundation, South Korea 



2016–2021

**Software Development for Disaster Analysis using Machine Learning**

Co-PI · Ultra-High Performance Computing Research Center 



## PROFESSIONAL SERVICES

**2022–now**

Associate Editor, RA-L

**2022–2024**

Associate Editor, ICRA

**2019–2023**

Co-chair of IEEE RAS  
TC on Algorithms for  
Planning and Control of  
Robot Motion

## RECENT PUBLICATIONS

**2022**

*Extended Goal Recognition Design with First-Order Computation Tree Logic*, AAAI.

**2022**

*Dynamic Robot Chain Networks for Swarm Foraging*, ICRA.

## TALKS

**2022**

*"Smart Lifestyle in Smart Cities: How will AI change our daily life in the future?"*, World Science Culture Forum, Daejeon.

## SPOKEN LANGUAGES

English  
Cantonese  
Mandarin  
Korean



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