

Student Extracurricular and Academic Achievement

Internship1:

Time: 2022/5-present

Place: Institute of General Artificial Intelligence (BIGAI), Multi-Agent Lab



Work Content: Been doing research associated with multi-agent reinforcement learning.

Internship2:



Time: 2022/7-2023/1

Place: Airbus Beijing Engineering Center

Work Content:

Developing automated scripts to extract and parse non-conformity (Airbus A 320 and 330 HTP defects) and concession data from SAP GUI system, - Modelling non-conformity - concession matching system based on multimodal defect similarity.

Student Activities



Publication (recent 3 years)

MATE: Benchmarking Multi-Agent Reinforcement Learning in Distributed Target Coverage Control

<https://openreview.net/forum?id=SyoUVEyzJbE>
Neurips 2022 (CCF A conference)

Proactive Multi-Camera Collaboration for 3D Human Pose Estimation

[https://openreview.net/forum?id=Cply9TWFYBG&referrer=%5BAuthor%20Console%5D\(%2Fgroup%3Fid%3DICLR.cc%2F2023%2Fconference%2FAuthors%23your-submissions\)](https://openreview.net/forum?id=Cply9TWFYBG&referrer=%5BAuthor%20Console%5D(%2Fgroup%3Fid%3DICLR.cc%2F2023%2Fconference%2FAuthors%23your-submissions))

Degree Program (Master+PhD)

Process: Apply Online-Initial Screen-Interview-Offer

Application Link: <http://www.studyatpku.com>

Program Length: Master: 3 years
PhD: 4-5 years

Summer/Winter Camp

- **Time:** July-Summer Camp
December-Winter Camp
- **Highlights:**
 - ☆ Gain an insight of School of Computer Science
 - ☆ Understand the cutting-edge research of School of Computer Science
 - ☆ Understand the development of technology industry in China
 - ☆ Interact with other international students

Internship Program

- We accept applications from March 1 through December 31
- Student should reach out to faculty members first to request for internship



Testimonial1:

I had a wonderful experience. I found the weekly sessions with Professor Lu, in which the discussion and being able to observe how he tackled a problem, to model the style of environment which I would like to be apart. I also found that I improved my foundation in RL and MARL greatly, as every week I found myself reading recent publications as well as learning a topic not previously presented.

Testimonial 2:

I genuinely enjoyed my stay at PKU and would definitely recommend anyone who consider doing research to join the program and become a visiting student. Thank you for the committee and the school for providing such a well-designed and positive platform. I have had a perfect start to my research life at PKU.

Contact Information

School of Computer Science

E-mail: gradadmissions.cs@pku.edu.cn

<https://cs.pku.edu.cn/English/Home.htm>



北京大学计算机学院
School of Computer Science

Application brochure

School of Computer Science at Peking University

Programs and Rankings

1%

1 ESI top 1% disciplines 1% (Computer Science)

12

Ranked 12 (QS World Ranking 2023)

1

CS ranking 1 -software engineering

2

CS ranking 2 -Artificial Intelligence

13

CS ranking 13-All Areas

Faculty

109 Faculty members

55

professors/researchers

48

associate professors/assistant professors/associate researchers

6

lecturers/assistant researchers

- 7 Academicians
- 5 Academia Europaea
- 4 Chair professors
- 7 Distinguished Professors of the Chang Jiang Scholars Program
- 12 Distinguished Young Scholars of The National Science Fund
- 11 ACM/IEEE Fellow

Turing Program

Turing Program is composed of two parts: undergraduate, known as Turing Class founded in 2017, and graduate student cultivation, which was started in 2019. The program gathers together world-class scientists to design the cultivation scheme and curriculum in various disciplines of computer science, including but not limited to computer software and theory, computer application technology, computer architecture, intelligence science and technology, software engineering, etc., aiming to build a world-leading whole package of talent cultivation program: from undergraduate to Ph.D. students. Professor John E. Hopcroft, Turing Laureate in 1986, a world-leading computer scientist, is deeply involved in designing the cultivation scheme and curriculum and teaches some courses by himself. He also provides one to one guidance to the teachers of other courses to guarantee the teaching quality.

Turing Class, founded by School of Electronics Engineering and Computer Science (EECS) at Peking University (PKU) in 2017, is an elite undergraduate program that draws the cream of the crop from the PKU undergraduate talent pool, aiming to build a world-class undergraduate cultivation base, cultivating a new generation of computer scientist/engineers who are solid in both theories and practices. It has three directions: Computer Science, Artificial Intelligence and Information and Computer Science.

Dean

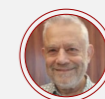


Hu, Zhenjiang

Turing Advisors



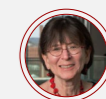
John E. Hopcroft



Manuel Blum



Silvio Micali



Lenore Blum

Key Labs

- ★ National Experimental Teaching Demonstration Center
- ★ National Engineering Research Center of Visual Technology
- ★ Key Laboratory of High Confidence Software Technologies
- ★ Key Laboratory of Computational Linguistics
- ★ Engineering Research Center of Ministry of Education on Micro-processor and System
- ★ MoE Key Laboratory of Network and Software Security Assurance
- ★ The III Innovation Base for High Confidence Software Technology
- ★ Beijing Engineering Technology Research Center of Virtual Simulation and Visualization

Organization

● Institute of Computer Architecture

Modern Microprocessor Instruction-level parallelism, branch prediction, speculative execution, cache and virtual memory optimization, multithreading, energy-efficiency microarchitecture

● Institute of Networking and Energy-efficient Computing (NEEC)

Cross-domain and full-stack networking technologies
 Distributed intelligence systems
 High-performance computing systems
 Design and automation of embedded systems
 Hardware-software collaborative computing
 System software: operating systems, virtualization, storage systems and so on

● Institute of Data Science and Engineering

Targeting systematic and interdisciplinary research on data science, bottom-up involving big data storage, networked distributed systems, big data management system, machine learning system, efficient data structures, data mining algorithms, and applications of big data for social computing, recommendation system, smart medical care, etc.

● Institute of Software

Pioneer and leader in software engineering research in China, winner of multiple national awards.
 The original inventor of "Internetware", a new paradigm for software in the Internet era, winner of many national science and engineering awards.

Research in data encoding and modeling in bioinspired computing, winner of multiple national science awards.
 Winner of many Best Paper and Distinguished Paper awards from prestigious conferences such as ICSE, FSE, ASE, UbiComp, ISSTA, RE, MODELS, CBSE, etc.

● Institute of Computational Linguistics

Language Resources and Language Knowledge Engineering
 Chinese Segmentation, Syntactic, Semantic and Discourse Parsing
 Information Extraction and Text Mining
 Social Media, Sentiment Analysis and Opinion Mining
 Document Analysis and Summarization
 Machine Learning and Deep Learning Approach to Natural Language Processing

● Metaverse Technology Institute

Blockchain Research
 AI and Blockchain Systems
 Distributed Systems and Networking Technology for Blockchain

● Institute for Visual Technology

Video coding, Computer vision, Multimedia big data processing and analysis, Bio-vision liked visual information coding, Multimedia SoC, Testing technologies

● Center on Frontiers of Computing Studies (CFCS), Peking University (Turing Award Winners John E. Hopcroft, Manuel Blum)

Proactive Visual Computing & Learning
 Computational Economics
 Intelligent Interactive Computing.

● Institute of Theoretical Computer Science

Research interests include:
 Intersection of Theoretical Computer Science and Economics
 Randomness in Computation, Sublinear Algorithms
 Algorithmic Game Theory
 Coding Theory, Cryptography
 Theoretical Machine Learning
 Quantum Information Science, Theories in Quantum Computing

Pioneer in Algorithmic Game Theory, winner of international award
 Papers are published in prestigious conferences and journals, including STOC, FOCS, SODA, EC, CRYPTO, EUROCRYPT, TCC, CCC, ICALP, NeurIPS, ICML, ICLR, ITCS, AAI, Journal of the ACM, IEEE Transactions on Information Theory, Review of Modern Physics, Physical Review Letters, etc.

● Center for Energy-efficient Computing and Applications (CECA)

Adaptive Architecture and Design Automation for Emerging Apps
 Computing System for Affective Intelligent Robotics
 Extreme Wireless Networking System

● Center for Computing and Interdisciplinary Sciences

Computing and interdisciplinary science is a cutting-edge interdisciplinary science. Based on big data and intelligent computing, it provides people with important scientific research methods for observing and analyzing complex behavior patterns of human society, and it also provides a new research paradigm for the development of related disciplines.

- Systems development to support computational and interdisciplinary scientific research.
- Research on teaching methods in the field of computing and interdisciplinary science.
- Research, transformation and application of computing and interdisciplinary science.

● AI Innovation Center

Cultivation of leading talents: The center is founded and led by Baidu Co-founder. Based on the strong academic research capabilities of Peking University, combined with top entrepreneurs, VC, and AI industry experts, the center is jointly built to integrate academic research and innovation and entrepreneurship capabilities, for cultivating future AI leading talents.
 Focus on innovation and entrepreneurship: the most important thing is to be able to identify research problems and solve them creatively. The center organizes top entrepreneurs and investors to design innovation and entrepreneurship courses to help students discover needs, design products, and prepare for future innovation and entrepreneurship.

● Center for Data Space Technology and System

Data space is a new form of transformation from "computing-centric" to "data-centric" in the network space, supporting the digital economy and digital society. This center aims to establish a fundamental application theory of data space with significant original innovations, break through key technologies of international advanced core systems, and build a world-class collaborative innovation team.

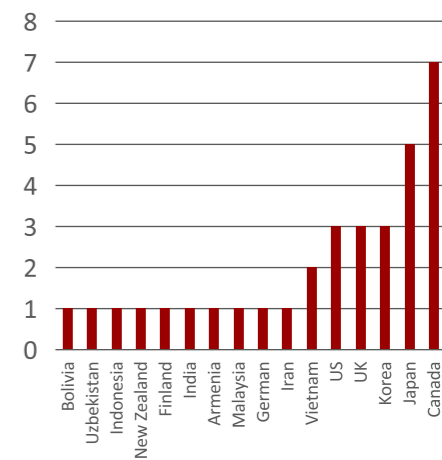
- Research on fundamental theories, key technologies, and core standards of data space
- System development of the data space infrastructure, i.e., Internet of Data
- Construction and operation of the global open-source community for data space

International Student Statistics (Since 2020)

Currently PhD Student 5, Master Student 15

Diversity: North America, Southeast Asia, etc

Admitted Students



Strong Education Background

UK: Imperial College London, Lancaster University etc.

Canada: University of British Columbia, University of Toronto etc.

US: Mount Holyoke College, University of Southern California etc.

China: Peking University, Tsinghua University etc.

Korea: Sejong University

Admitted Students

