

NYU SHANGHAI COMPUTER SCIENCE

Founded in 2012, NYU Shanghai is China's first Sino-US research university and the third degree-granting campus of the NYU Global Network. The university seeks to cultivate globally minded graduates through innovative teaching, world-class research, and a commitment to public service.

Computer Science at NYU Shanghai is designed to create technological leaders with a global perspective, a broad education, and the capacity to think creatively. Computer science focuses on how to design, build, and effectively use the computers, the computer-driven systems, and computer networks that we interact with every day — from the iPhones in our hands to the complex databases in our banks and hospitals and to the self-driving cars of the future. Some of the more prominent subfields in computer science include Artificial Intelligence, Computer Security, Computer Networking, Computer Architecture, Cloud Computing, Natural Language Processing, Computer Vision, Cryptography, and Computer Science Theory.

EDUCATION & TRAINING

Undergraduate Studies

NYU Shanghai Degree [Undergraduate Studies in Computer Science](#)

NYU Shanghai students earn a Bachelor of Arts or Bachelor of Science degree conferred by New York University—the same degree awarded at our New York campus—as well as a Chinese diploma recognized by the Chinese government, qualifying graduates for opportunities both in China and around the world.

Graduate Training

NYU Shanghai Degree [Computer Science PhD Program](#)

NYU Shanghai, in partnership with the the NYU Courant Institute of Mathematical Sciences and the NYU Tandon Department of Computer Science and Engineering, seeks exceptional students for PhD study and research in the respective program. Participating students are enrolled in the NYU GSAS Computer Science PhD program or NYU Tandon Computer Science PhD program, complete their coursework in New York, and then transition to full-time residence at NYU Shanghai where they undertake their doctoral research under the supervision of NYU Shanghai faculty.

Highlights of the Program:

- NYU degree upon graduation
- Graduate coursework at NYU New York, either at the Courant Institute or Tandon Department of Computer Science and Engineering
- Research opportunities with and close mentorship by NYU Shanghai faculty
- Access to the vast intellectual resources of the NYU Computer Science community
- Cutting-edge research environment at NYU Shanghai, including the Center for Data Science and Artificial Intelligence, activities such as a regular program of seminars and visiting academics, a thriving community of PhD students, post-doctoral fellows, and research associates, and links with other universities within and outside China
- Financial aid through the NYU Shanghai Doctoral Fellowship, including tuition, fees, and an annual stipend
- Additional benefits exclusive to the NYU Shanghai program, including international health insurance, housing assistance in New York, and travel funds

RESEARCH

DAIL Lab: Deep Artificial Intelligence Learning

Machine learning and artificial intelligence algorithms are increasingly powering our society, driving advances in everything from healthcare to manufacturing to transportation. If the last few decades were dominated by developments in the internet and wireless connectivity, the next few decades will almost certainly be the era of AI.

Based on an algorithmic paradigm called “neural networks,” deep learning is a machine learning technique that teaches computers to do what comes naturally to humans: learn by example. Deep learning is the key technology behind modern advances in computer vision applications such as driverless cars and disease classification from medical images; in natural language processing, such as machine translation and speech recognition; and in sequential decision making, such as beating grandmasters at Go and teaching robots to perform complex tasks.

At NYU Shanghai, we are passionate about research and education in machine learning, deep learning, and AI in general. Our world class faculty work in a wide-range of machine learning topics, including computer music, deep reinforcement learning, natural language processing, computer vision, and AI applied to financial applications. Our faculty not only work closely with PhD students, but also actively engage undergraduates in cutting-edge research.

Computer Science Theory

What is the nature of computation? Can we design more efficient algorithms? What are the fundamental limits of computation? How can we use these limits to secure our digital life? At NYU Shanghai, our strong and diverse theoretical computer science group seeks answers to these questions with a particular interest in the following areas: algorithms, data structures, computational geometry, complexity theory and cryptography.

Networking Systems

Networking systems serve as the foundation for the digital economy. By connecting users, data, and computing power, they enable the seamless exchange of information and facilitate collaboration and communication. Hence, networking systems are the cornerstone for the growth of emerging digital industries, including artificial intelligence, big data, blockchain, and the Internet of Things.

FACULTY

*By Alphabetical Order of Last Name



Xianbin Gu

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Xianbin Gu is an Assistant Professor of Practice in Computer Science at NYU Shanghai. His research interests include machine learning and its application in computer vision and data analysis.



Li Guo

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Li Guo is an Assistant Professor of Practice in Data Science at NYU Shanghai. Guo's research and technical skills center around statistical analysis. She incorporates this specialty to perform research into deep neural networks to study natural language processing and computer vision. Guo also specializes in machine learning models, including generalized linear models, logistic regression, and cluster analysis. Prior to joining NYU Shanghai, Guo worked as a data scientist with Alibaba Groups and as a statistician with Kelley Blue Book. Her research has appeared in the Australian & New Zealand Journal of Statistics and the American Journal of Cosmetic Surgery.



Siyao Guo

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Siyao Guo is an Assistant Professor of Computer Science, NYU Shanghai. Previously, she was a postdoctoral fellow at the Cybersecurity and Privacy Institute at Northeastern University. Prior to that appointment, Guo was a postdoctoral fellow at the Simons Institute for the theory of computation at UC Berkeley and the Courant Institute of Mathematical Sciences at New York University.



Guyue Liu

Assistant Professor of Computer Science

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Guyue (Grace) Liu is an Assistant Professor of Computer Science at NYU Shanghai. Previously, she was a postdoctoral researcher at Carnegie Mellon University. Dr. Liu's research lies at the intersection of networks, systems, and security. She was the recipient of the 2019 EECS Rising Stars, HP Hellon OpenStack Scholarship, and she was selected as one of the ten global N2Women rising stars in networking and communications in 2019. Dr. Liu looks forward to working with self-motivated undergraduate and graduate students who are interested in systems, networks, and security research. Students with these interests should feel free to contact her.



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Olivier Marin is an Undergraduate Coordinator of Mathematics and Professor of Practice in Computer Science at NYU Shanghai. Marin received his PhD in Computer Science in 2003 from the Université du Havre, France. Marin is an expert in Operating Systems.



Paul-Andre Mellies

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Paul-Andre Mellies is a CNRS Researcher member of the Laboratoire IRIF at the Department of Mathematical Sciences and Department of Computer Science of the Université Paris Denis Diderot. His research interests are Mathematical logic, proof theory, game semantics, theory and practice of programming languages, computer architecture, operating systems, formalized mathematics, proof assistants, mathematical physics, knot theory, quantum groups, n-dimensional algebra, operads. His ambition is to connect these topics.



Keith Ross

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Keith Ross is the Dean of Computer Science, Data Science, and Engineering, a Professor of Computer Science at NYU Shanghai. He also holds an affiliated appointment with the Department of Computer Science at the Courant Institute of Mathematical Sciences and with the Center for Data Science at NYU. He is an ACM Fellow and an IEEE Fellow.



Prométhée Spathis

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Dr. Promethee Spathis was a Visiting Associate Professor at NYU Shanghai. He is also an Associate Professor at University Pierre et Marie Curie (UPMC) since 2003. He received his Ph.D. in Computer Science from UPMC in 2003. Professor Spathis' current research interests are related to the Internet technology and protocols with an emphasis on large-scale content distribution systems and sensor mobile networks. He has co-authored numerous scientific publications in international journals and international conference proceedings.



Yik-Cheung (Wilson) Tam

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Yik-Cheung (Wilson) Tam is a Professor of Practice in Computer Science at NYU Shanghai. From 2017 to 2020, he was a principal NLP scientist and manager at WeChat AI focusing on research and development for Xiaowei, a virtual personal assistant, and music recommendation. From 2015 to 2017, Wilson was a senior NLP scientist and manager at Microsoft (Suzhou) working on natural language understanding for Cortana, Microsoft's virtual personal assistant. He has six years of research experience in the United States, including with SRI international (formerly Stanford Research Institute), and Nuance communications Inc.



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Hongyi Wen is an Assistant Professor Faculty Fellow of Computer Science at NYU Shanghai. Professor Wen received his BEng in Computer Science and Technology from Tsinghua University in 2016. He holds a PhD in Information Science from Cornell University, where he was fortunate to work with Professor Deborah Estrin. His research interest lies in developing human-in-the-loop machine learning systems for improving the long-term values of personalizations.



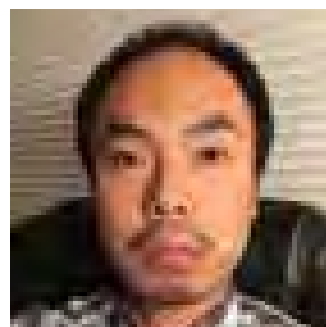
Gus Xia

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Gus Xia is an Assistant Professor of Computer Science, NYU Shanghai; Global Network Assistant Professor, NYU. Professor Xia also holds an affiliated faculty appointment with NYU Tandon. He holds a PhD in Machine Learning from Carnegie Mellon University, where he worked with Prof. Roger Dannenberg.



Lihua Xu

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Lihua Xu is a Professor of Practice in Computer Science at NYU Shanghai. She received both her Masters and PhD degree in computer science from the University of California, Irvine. Her research interests are in software engineering and mobile security, with a focus on improving software quality via program analysis. She has published in top-tier venues such as ICSE, FSE, ASE, CCS, and MobiCom. Her recent work in software analysis received the 2018 ACM SIGSOFT Distinguished Paper Award. She is a recipient of the "Best New Investigator" award at the 2006 Grace Hopper Women in Computing conference.



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Jie Xue is an Assistant Professor of Computer Science at NYU Shanghai. Prior to this position, he was a postdoctoral scholar at the University of California, Santa Barbara. He obtained his PhD in Computer Science with a minor in Math at the University of Minnesota, Twin Cities. His research interests include computational geometry, algorithms, and data structures.



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