



BEIJING
JIAOTONG
UNIVERSITY



Know more about BJTU



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School of
Software Engineering
Prospectus





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Welcome

China is a wondrous and timeless civilization. With a history dating back five millennia, it stands as one of the world's oldest and most continuous cultures—a living heritage that has constantly renewed itself while preserving its profound cultural core.

In recent decades, China has also made remarkable strides in social and economic development. Today, as the nation advances in science and technology, its software industry is surging forward with impressive momentum.

The School of Software Engineering at Beijing Jiaotong University is located in the heart of Beijing—a city that serves as China's political, cultural, and international exchange center, and a vibrant hub for technological innovation.

If you could visit only one city in China, it should be Beijing, where the nation's most iconic landmarks and contemporary achievements come together. Here, you can explore the majesty of the Forbidden City, the solemn beauty of the Temple of Heaven, the vastness of Tian'anmen Square, and the awe-inspiring Great Wall—one of humanity's most monumental ancient wonders. You will also witness how tradition and modernity intertwine, from historic hutongs to the stunning architecture of the 2008 Olympic Games, including the iconic Bird's Nest and the Water Cube.

Beyond its cultural wealth, Beijing is a city looking forward—a place of ideas, innovation, and global connection. It is against this dynamic backdrop that our School of Software Engineering thrives, educating tomorrow's technology leaders and contributing to a digitally connected world.

Whether you come to study, collaborate, or explore—welcome to Beijing, and welcome to Beijing Jiaotong University. We look forward to walking with you at the crossroads of history and the future!



Message from our Dean

Founded in March 2003, Beijing Jiaotong University School of Software Engineering was one of 37 national demonstration software colleges. In November 2006, School of Software Engineering was one of the first colleges accredited as a Model Software Institute by the Ministry of Education, **“Exploration and Practice of Elite Software Engineer Talent Training Model”** won the first prize of national teaching achievement, our college has become a national-level talent training mode innovation experimental zone, national-level specialty construction site, established a number of excellent courses such as national-level exquisite classes, bilingual demonstration classes and exquisite resource sharing classes.

Our school has three departments, namely the faculty of Research Center for Intelligent Transportation Software and Security, Software Engineering Research Center and Software Engineering Teaching Demonstration Center which has **about 520.17 square meters of teaching rooms and research laboratories**. While offering an undergraduate program, we also have master and doctoral degree programs in Software Engineering. **We enroll 200 undergraduates, 225 postgraduates and 80 overseas students enroll each year.**

The School is committed to fostering international collaboration with overseas universities. By facilitating expert exchanges, joint research initiatives, and international conferences, we aim to enhance our global engagement and elevate our academic influence worldwide. More than 50% of the projects are funded by the China Scholarship Council.

We are entering a stage of rapid growth. We will continue to innovate, pursue excellence, and improve our educational quality as we strive to become a world-class international software school. If you are looking to make a difference in the future, come and join us at SSE, I look forward to seeing your name at our school!

TOP 10 REASONS WHY SSE IS FOR YOU

Industry-ready

Integrate industry practices with education to tailor talent for specific sector needs, preparing graduates for core industry roles.



3

Immersion in projects

Solve real-world industry challenges through hands-on laboratory training.



4

English Program

Learn in fully English-taught graduate programs without taking the HSK.



1

High Teaching Quality

Learn alongside a faculty team composed of over 90% PhD holders and more than 50% industry practitioners.



2

Internship Opportunity

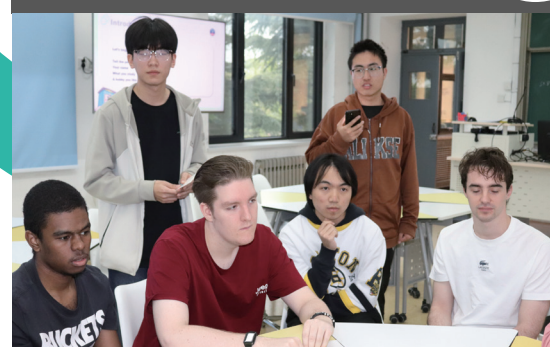
Experience real-world work environments and get a head start in your career. Over 90% SSE graduates land a job within six months of graduation.



5

Global Exposure

Learn in a multicultural classroom shared by local Chinese students and peers from across the globe.



6

Experience in Chinese Culture

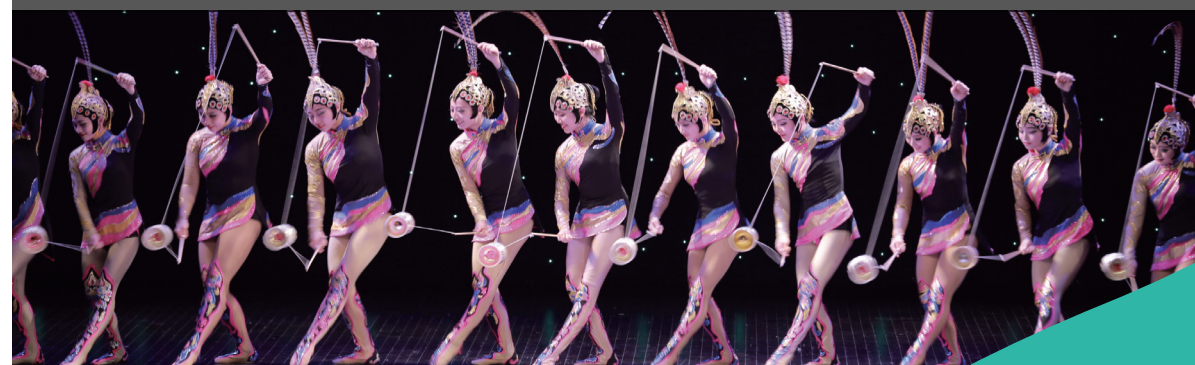
Live like a Chinese and simultaneously study Mandarin and Chinese cultural studies.



9

Vibrant Campus Life

Explore new passions and interests, choose from over 200 student organisations, and enjoy a wide range of sports and recreational facilities.



10

国家示范性
软件学院
SCHOOL OF SOFTWARE ENGINEERING

Be Among the Top Ranked

Discover your strengths at a software engineering school placed among the best in China.

7

Beautiful Campus

Study on a large, beautiful campus that feels like a home away from home.



8

Among the Top Ranked

Discover your strengths at a software engineering school placed among the best in China.

Prestigious National Status

One of China's first 37 **National Model Software Schools** (approved by the Ministry of Education)

One of China's first 33 **National Featured Model Software Schools** (top-tier accreditation for industry-aligned software education)

Leadership in the National Software Education Alliance

As the **Secretariat & Chair Unit of the National Alliance of Model Software Schools**, SSE leads the national network of China's most prestigious software engineering programs, setting standards for curriculum innovation, industry collaboration, and talent cultivation across the country.



National-Level Platforms & Infrastructure

• National Engineering Practice Education Center

Dedicated to bridging academic learning with real-world industry demands, offering state-of-the-art labs and internship opportunities with leading tech enterprises.

• Beijing Municipal Experimental Teaching Demonstration Center

A hub for hands-on software engineering training, equipped with advanced computing infrastructure and specialized labs for smart transportation, big data, and AI applications.

Opportunity for All Scholarships

A range of scholarships are available to support outstanding international students. While opportunities are diverse, selection is competitive based on academic merit and potential.



For details, you can visit:<http://www.campuschina.org/>

How We Teach

— Learn by Doing

At SSE, we don't just teach software engineering — we immerse you in it. Our industry-integrated model connects classroom theory with real-world practice through enterprise partnerships, project-based learning, and internship pathways. You will graduate not only with a degree, but with a portfolio of real projects, professional experience, and a network in China's tech capital.

PROJECT-DRIVEN CURRICULUM

Every course integrates a hands-on project component. From software design to system deployment, you apply theory to practice in every semester.



CROSS-DISCIPLINARY COLLABORATION

Break down academic silos. Work in teams that combine software engineering with intelligent transportation, AI, and data science — mirroring real industry structures.



REAL INDUSTRY CASE STUDIES

Learn from authentic problems sourced directly from our enterprise partners. Professors bring real cases into the classroom, not just textbook examples.



MENTORSHIP FROM INDUSTRY EXPERTS

Gain invaluable insights and personalized guidance directly from seasoned professionals who bring real-world expertise to accelerate your growth.



INDUSTRY CONNECTIONS THAT OPEN DOORS

Our partnerships go beyond logos on a page. We collaborate with industry leaders to co-develop curricula, bring real projects into the classroom, and create direct pathways from learning to employment.

According to the latest 2024 Graduate Employment Quality Report, our undergraduate employment rate reaches **93.1%**, master's employment rate is **99.26%**, and doctoral employment rate stands at **100%**.

To date, the School of Software has cultivated over **1,500** international students, many of whom have joined renowned Chinese or global enterprises.

What Our Partnerships Mean for You

- Co-developed curricula** — Course content shaped by real industry needs
- Real projects, real impact** — Work on cases from partner companies
- Direct talent pipelines** — Your career starts before graduation



YOUR GLOBAL EXPERIENCE

An international education that connects you to the world, prepares you for the future, and makes China your second home.



GLOBAL LEARNING

20+ International Partners

We collaborate with renowned universities across the US, UK, France, Australia, Canada, and beyond, giving you access to global academic networks.

A Truly Multicultural Classroom

You will learn alongside peers from around the world. Your study group might include classmates from Europe, Asia, Africa, and the Americas.

English-Taught, Globally Accessible

No HSK required. Our graduate programs are fully taught in English, removing language barriers so you can focus on your growth.



CULTURAL IMMERSION



A City of History & Energy

Beijing is where 3,000 years of history meet cutting-edge innovation. Ancient hutongs sit beside modern skyscrapers.

Your Chinese Language Buddy

A local student will help you learn Mandarin, navigate campus life, and discover hidden gems in Beijing. In return, you share your own language and culture.



Beyond the Classroom

From international food festivals to sports tournaments, from cultural performances to student clubs — there's always something happening on campus.



STUDENT SERVICES

Your life at SSE is more than just academics. From comfortable accommodation to vibrant campus activities, we ensure you feel at home in Beijing.

ACCOMMODATION

International students can choose from 3-person or 4-person rooms. All rooms are equipped with WiFi, air conditioning, beds, desks, bookshelves, and closets. Shared kitchens, laundry facilities, and bathrooms are available on each floor. 24-hour security ensures your safety.

Dormitory Type	Double Room	Triple Room	Quadruple Room
Price (RMB/day)	66	60	45
Annual Accommodation Fee Reference (RMB/year)	23760	21600	16200



FACILITIES

The campus provides a vibrant and convenient living environment. Dining options include Chinese, Western, and Halal cuisines. Essential amenities — supermarkets, fitness centers, and medical clinics — are all within easy reach, ensuring a comfortable and hassle-free daily life.



STUDENT ACTIVITIES

Engage in a dynamic community through diverse student clubs and associations. Participate in cultural excursions, international sports tournaments, traditional festival celebrations (Chinese New Year, Dragon Boat Festival, Mid-Autumn Festival), and social gatherings. Broaden your horizons and build lasting friendships with peers from around the globe.



Testimonials



Rafael Sapalo Esteves
Class of 2025

The project-based learning approach has been instrumental in preparing me for the real world by fostering independence and adaptability. By working on real-world projects, I learned to think critically and solve problems autonomously, rather than relying solely on instructions or textbooks. This method pushed me to take ownership of my learning, research solutions, and make decisions—skills that are directly transferable to professional environments.

Whether it was collaborating with teammates, adjusting to unexpected obstacles, or meeting tight deadlines, I developed the resilience and flexibility needed to thrive in dynamic work settings.

These experiences not only built my confidence but also equipped me with the autonomous skills to navigate unfamiliar situations with ease.

Before coming to China, I thought I knew what to expect. I was wrong — in the best way.

Living in Beijing taught me patience, curiosity, and how to find joy in the unfamiliar. Whether it was practicing calligraphy in a student club, or simply learning to say 'xie xie' with the right tone — every moment was a lesson.

The culture here isn't something you study. It's something you breathe. And by the end, you realize it has quietly changed you.



Jacques Spain
Class of 2025

SSE shaped my career and my life. The professional courses I took still guide my decisions at work today.

The Chinese classes sparked my love for this country — and I even met my wife at BJTU! We return to China every year to visit her family and explore new places.

Beyond the classroom, I built friendships that still last. SSE gave me a career, a family, and a second home. I will always be grateful.



Marc Perez
Class of 2019



Nathan Donadey
Class of 2024

If you're considering BJTU, I'd say you can expect a very hands-on and practical learning experience. What I found especially valuable was how quickly you get to apply what you learn. In cloud computing, for example, I worked on private cloud infrastructure and container orchestration, which are directly connected to real engineering challenges. On the AI side, I went deeper into the fundamentals by implementing neural networks and optimization techniques from scratch in Python, which really helped me understand how things work under the hood. Outside of classes, being involved in activities like volleyball made it easy to meet people and enjoy student life. Overall, it's a great place if you want to build strong technical skills while also experiencing an international environment.

The academic environment at SSE, Beijing Jiaotong University, is truly excellent, and I genuinely love studying here. The professors are highly knowledgeable and approachable, always taking time to answer our questions patiently. Courses are taught in English, which is a great advantage for international students, and the curriculum is both engaging and well-designed. I have particularly enjoyed the classes on data science and big data, where theory and practical applications come together to prepare us for our future careers.

What also makes SSE special is its international atmosphere. Studying alongside classmates from different countries creates a friendly, supportive community where we share ideas, help each other, and grow together.



Enzo Dziejewski
Class of 2025

LEARN MORE ABOUT OUR

UNDERGRADUATE PROGRAM

ABOUT

SSE undergraduate program trains software engineering talents with good engineering quality and solid theoretical foundation and professional knowledge of software engineering, strong software engineering practice, good teamwork and communication skills, innovative, social responsibility and international professional vision, can be competent in software development and management, software engineering service and technology research in enterprises, research institutes, governments.



STUDY AREAS

- Software Engineering
- Data Science and Big Data

Python SQL
Software Testing Web Development
Software Engineering Algorithms
Data Structures
System Analysis Machine Learning
Cloud Computing Project Management
Database Systems Deep Learning
Big Data Analytics Operating Systems
Data Warehousing Data Visualization
AI Fundamentals Data Mining
Predictive Analytics
Statistics

Global Vision & Cultural Fluency

Cultivate well-rounded individuals who demonstrate respect for cultural diversity and a deep understanding of the global IT landscape. Students will gain specific insights into the Chinese market and business environment, enabling them to build bridges between international technological standards and local practices.

Professional Integrity & Excellence

Uphold the highest standards of legal compliance, academic rigor, and professional ethics. Students will develop strong dedication and innovative consciousness, preparing them for responsible leadership roles in the global tech industry.

Advanced Technical Competence

Master cutting-edge theories and methodologies in software engineering, keep pace with technological advancements in AI and intelligent software systems, and independently discover, analyze, and solve complex software engineering problems.

Leadership & Cross-Cultural Collaboration

Possess the ability to lead multidisciplinary teams in diverse, cross-cultural environments. Prepare students for senior technical and managerial roles—such as Senior Software, Engineers, Software Architects, Product Managers, and Project Managers—in multinational corporations, research institutions, and global enterprises.

GRADUATE PROGRAM

ABOUT

SSE graduate program takes intelligent software engineering as its core training orientation, deeply integrating software engineering with cutting-edge artificial intelligence technologies. It has formed a distinctive and competitive postgraduate training system for professional master's students. The training model highlights the integration of the theoretical learning and engineering practice, and enhances students' practical and international competitiveness through school-enterprise cooperation and internationalized approaches. The goal is to cultivate elite software engineers who master the theoretical foundations of software engineering and can engage in software development, project management and technical services in scientific research institutions, government agencies, enterprises, etc.



STUDY AREAS

- Artificial Intelligence and Big Data
- Key Software for Industry Applications
- Intelligent Software Engineering

Cloud Services
Internet of Vehicles Railway Software
Middleware Data Visualization Web Services
Machine Learning Smart Mobility Software Testing
API Design Intelligent Transportation Big Data, Formal Methods Traffic Simulation
Intelligent Transportation Systems AI & Big Data
Software Engineering Theory & Technology
Software Service Engineering Big Data Frameworks
Deep Learning, Software Architecture Data Mining SOA
Natural Language Processing Computer Vision
Service Computing Neural Networks
Transportation Big Data Microservices Architecture
Requirements Engineering
Process Modeling

Program Educational Objectives

Global Vision & Cultural Fluency

Cultivate well-rounded individuals who demonstrate respect for cultural diversity and a deep understanding of the global IT landscape. Students will gain specific insights into the Chinese market and business environment, enabling them to build bridges between international technological standards and local practices.

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SSE Staff

There are 28 full-time teachers, 28 enterprise experts; All enterprise experts are technical directors, project managers, and hands-on software engineers with rich engineering practice experience. Teachers with doctoral degree is 92.9%.

Research Areas:

Software Service Science and Engineering, Software Engineering Application, Software System Parallel Computing and Deadlock Detection

Main Achievements:

Head of National Excellent Teaching Team; Enjoy special government allowance experts from the State Council; Deputy Director of Teaching Steering Committee of Software Engineering of MOE; Chairman of the Alliance of Demonstrative Software Academies; 6th National Teaching Achievement Award, First Prize; Beijing City Education Innovation Model, Capital citizen learning star and other honorable title; Presided 3 National Natural Science Foundation Projects, 9 Educational reform projects; 7 Invention Patents, 2 Software Copyrights; Has published many academic papers in top journals and conferences at home and abroad.



Prof. Wei LU

Dean of School of Software Engineering



Prof. Enjian YAO

Director of council of School of Software Engineering

- **Research Areas:**
Intelligent Transportation, Integrated Transportation, and Low-Carbon Transportation
- **Main Achievements:**
Enjoy special government allowance experts from the State Council;

Presided over 50+ research projects, including those under the National Key R&D Program, NSFC General Program, and Beijing Natural Science Foundation Key Program;

Published 300+ academic papers and granted 25 invention patents;

Recognized as an Elsevier Highly Cited Researcher and listed among the top 2% of scientists globally;

Awarded the Second Prize of Beijing Science and Technology Progress Award, First Prize of China Communications and Transportation Association Science and Technology Award, etc.;

Honored as "National Outstanding Highway Science & Technology Worker" (Top Ten), "BaoGang Outstanding Teacher Award" winner, "Beijing Outstanding Teacher," etc.

Research Areas:

Intelligent perception computing, Intelligent software engineering

Main Achievements:

Talents of the Ministry of Education in the New Century;
Young Talents of Higher Education Institutions in Beijing;
Vice Chair & Secretary-General, Alliance of Demonstrative Software Colleges;
First Prize of Beijing Teaching Achievement Award;
Principal Investigator of National Natural Science Foundation Projects;
Granted over 20 invention patents;
Published over 100 academic papers in journals and conferences;
Published 2 textbooks and 2 academic monographs.



Prof. Weiwei XING
Head of Software Engineering
Research Center



Prof. Ergude BAO
(Director of the Smart Transportation
Center)

Research Areas:

Software Engineering Theory and Technology, Artificial Intelligence and Big Data, Software Service Engineering, Software Engineering, Key Software in Intelligent Transportation / Critical Software for Intelligent Transportation Systems (ITS)

Main Achievements:

Led multiple projects funded by the National Natural Science Foundation of China, the Beijing Natural Science Foundation, and enterprise collaborations;
Developed AI models and algorithms adopted by industry;
Published numerous papers in top-tier CAS Category 1 and CCF-A journals.

Research Areas:

Artificial intelligence, Video image processing and analysis/computer vision, Image enhancement and restoration, Visual object tracking, Video segmentation, Object detection and recognition, Behavioral action recognition, Gait recognition, Intelligent cognitive decision-making, Path planning, Resource allocation, Task planning, Intelligent recommendations, Machine learning, deep learning and large models

Main Achievements:

Presided over 2 National Natural Science Foundation projects, 2 Beijing Natural Science Foundation projects, and multiple enterprise collaborative research projects, achieving notable research outcomes;
Published over 60 papers in internationally renowned journals and conferences, including CVPR, ICCV, AAAI, ACMMM, TIP, TMM, and TNNLS;
Led the research team to win first place multiple times in international academic competitions.



Prof. Shunli ZHANG
(Vice Dean of School of Software
Engineering)



Prof. Lingyun LU

Research Areas:

Software Engineering Theory and Technology, Artificial Intelligence and Big Data, Software Service Engineering, Software Engineering, Key Software Technologies for Intelligent Transportation

Main Achievements:

Awarded the title of Teaching Master at Beijing Jiaotong University, honored as a "Zhijin" Outstanding Young Faculty member, recipient of the "Woqi" Teaching Award, Second Prize of Beijing Municipal Teaching Achievement Award, and recognized for National Top-Quality Online Open Courses;
Presided over 2 national-level fund projects and participated in 3 National Natural Science Foundation projects;
Served as chief or deputy editor of 5 high-quality textbooks;
Published over 30 papers in international journals such as IEEE Transactions on Industrial Informatics.

Research Areas:

Software Engineering Theory and Technology, Artificial Intelligence and Big Data, Software Service Engineering, Software engineering, Key software in the field of intelligent transportation

Main Achievements:

Presided over the research project "Technology for Refined Management of Railway Passenger and Freight Operations";
Received national-level teaching achievement awards for three consecutive years, and was honored with the university-level Distinguished Teacher Award, the Zhan Tianyou Special Prize, the Zhijin Award, and the Outstanding Teacher Award, among other accolades.



Prof. Hong ZHAO



Prof. Fangshi WANG

Research Areas:

Software Engineering Theory and Technology, Artificial Intelligence and Big Data, Software Service Engineering, Software engineering, Key software in the field of intelligent transportation

Main Achievements:

Completed multiple research projects and published several academic papers in high-level journals and conference proceedings, including Acta Electronica Sinica, Journal of Computer Research and Development, PR, TIP, CVPR, IJCV, ACCV, and ICPR.

Mentoring

Teaching

Inspiring

Research Areas:

Network Science and Big Data, Social Computing, Network Information Dissemination, Data Mining, Machine Learning.

Main Achievements:

Participated in National Major Basic Research Program (973), National High-tech Research Program (863), key and surface projects of the National Natural Science Foundation;
Published multiple papers in top-tier journals, including those in the Chinese Academy of Sciences Zone 1 and CCF-A categories.;
Reviewer of many international conferences and journals.



Prof. Peng BAO



Assoc. Prof.
Lingkun LI



Assoc. Prof.
Haonan TONG



Assoc. Prof.
Duo LIU



Assoc. Prof.
Di ZHANG



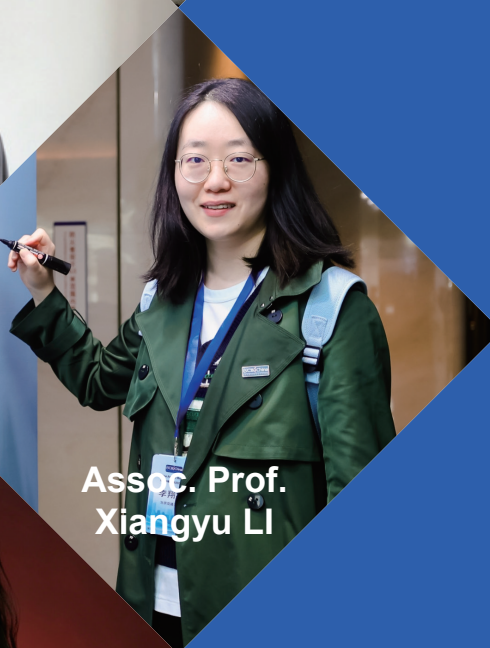
Assoc. Prof.
Xiaofei DI



Assoc. Prof.
Siyuan HAO



Assoc. Prof.
Xiang WEI



Assoc. Prof.
Xiangyu LI



Assoc. Prof.
Bo GAO



Assoc. Prof.
Yixuan MA



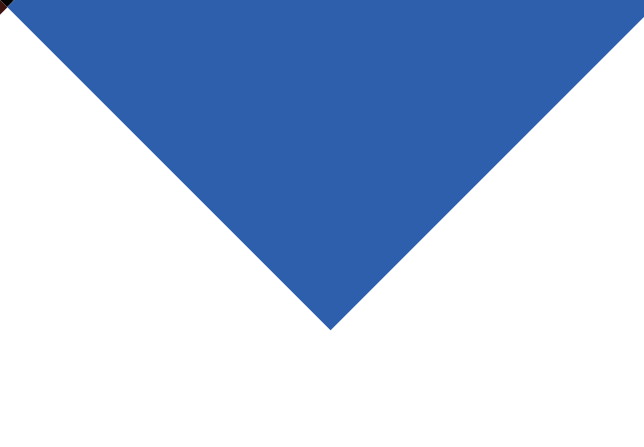
Assoc. Prof.
Fan DANG



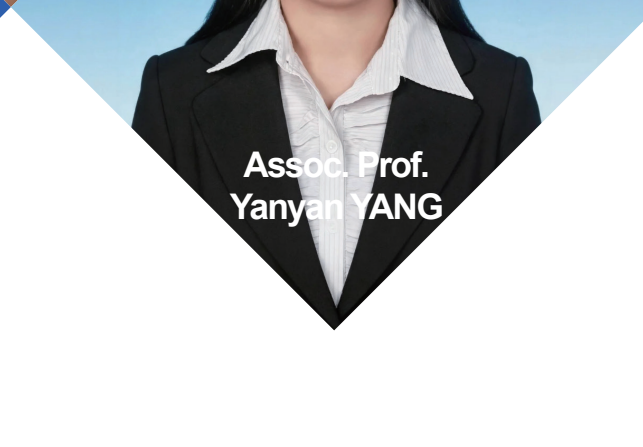
Assoc. Prof.
Xudong CHEN



Assoc. Prof.
Mengru SHEN



Assoc. Prof.
Yanyan YANG



APPLY TO SSE

Program types	Qualifications
Undergraduate	Diploma equivalent to a Chinese secondary school certificate
Masters'	Bachelor's Degree or equivalent, 2 recommendations by associate professors or above, to be approved of by the target university.
Doctoral	Master's Degree or equivalent
Preparatory	Diploma equivalent to a Chinese secondary school certificate
General Visiting Scholar	College freshmen and above
Senior Visiting Scholar	Master's Degree and above

The following documents are required to upload during online application:

- 1.The photocopy of passport (pages with photo and personal information)
- 2.Recent electronic photo with white background and minimum size 640 x 480 pixels, or eight pieces of printed copies with size 30 x 40 mm sent by post
- 3.Notarized diploma of most advanced studies in English or Chinese
- 4.Transcripts: with certified copy of the English translation if not in English
- 5.Valid report of English Language proficiency tests or Chinese HSK level-4 Certificate
- 6.Two recommendation letters by associate professors or professor (for Master degree applicants only)
- 7.Study plan (courses to study and brief reason why)

The following is the application process:

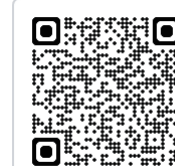
- 1.Click the website:<https://bjtu.17gz.org/>
- 2.Register as a new user.
 - As an exchange student, please choose "exchange program" -> "general visiting"
 - As a degree student, please choose "self-sponsored" -> "degree student"
- 3.Follow the instructions online to choose the teaching language and fill out the personal information.

Application deadlines:

Applicants for Fall semester: before June 20th.

Applicants for Spring semester: before December 1st.

	Programs	Tuition Fee	Durations
Undergraduate	Chinese Taught	RMB 24800/year	4 years
	English Taught	RMB 33800/year	4 years
Master	Chinese Taught (Research program of liberal arts)	RMB 29000/year	2 years
	Chinese Taught (Research program of science and engineering)	RMB 29000/year	3 years
	Chinese Taught (Professional program)	RMB 29000/year	2 years
	English Taught	RMB 35000/year	2 years
Doctor		RMB 34000/year	3 years for liberal arts, 4 years for science and engineering
General Visiting Scholars		RMB 22000/year	1 years
Senior Visiting Scholars		RMB 29000/year	1 years



Apply Now