

Beilong Tang

btang5@ncsu.edu | [Google Scholar](#) | [Homepage](#)

EDUCATION

North Carolina State University (NCSU)
Ph.D. in Electrical Engineering

Aug. 2025 – May. 2030
North Carolina, USA

Duke Kunshan University (DKU) & Duke University Dual Degree

Aug. 2021 – May. 2025

B.S. in Computer Science (DKU)

Kunshan, China

B.S. in Interdisciplinary Studies; Applied Math & Computational Sciences; Computer Science (Duke) Durham, U.S.

- GPA: 3.886/4.0
- Graduated with **Signature Work with Distinction** and **Magna Cum Laude (top 15% GPA)** award
- Notable Courses:
 - COMPSCI 309 Elements of Machine Learning – A
 - COMPSCI 402 Artificial Intelligence – A
 - STATS 403 Introduction to Deep Learning – A+
 - MATH 302 Numerical Analysis – A+
 - MATH 305 Advanced Topics in Linear Algebra – A+
 - (Graduate Course at Duke) COMPSCI 572 Natural Language Processing – A
 - (Graduate Course at Duke) ECE 689 Advanced Topics in Deep Learning – A+

RESEARCH EXPERIENCE

Research Assistant for Generative Models

Aug. 2025 – Present

The *VISSTA* Lab, NCSU

Supervisor: Dr. Hamid Krim

- Accelerate diffusion models' sampling process.

Research Assistant for Speech Separation and Enhancement

May. 2024 – June. 2025

The *SMIIP* Lab, DKU

Supervisor: Dr. Ming Li

- Conduct target speaker extraction using discrete tokens and auto-regressive language models.
- Explore discretization methods for mixed speech.
- Enhance speaker privacy protection.

Research Assistant for Federated Learning Project

May. 2023 – Jan. 2024

The *Edge Intelligence* Lab, DKU

Supervisor: Dr. Bing Luo

- Deployed Federated Learning (FL) and Federated Analytics (FA) on Edge Devices.
- Built privacy-preserving health monitoring system using FL and FA on DKU campus.
- Full-stack development for Android and iOS devices.

PUBLICATIONS

Tang, B., Zeng, B., & Li, M. (2025). LauraTSE: Target Speaker Extraction using Auto-Regressive Decoder-Only Language Models. *IEEE Automatic Speech Recognition and Understanding Workshop (ASRU)*.

Tang, B., Miao, X., Wang, X., & Li, M. (2025). SEF-MK: Speaker-Embedding-Free Voice Anonymization through Multi-k-means Quantization. *IEEE Automatic Speech Recognition and Understanding Workshop (ASRU)*.

Lin, Y., Cheng, M., Li, Z., **Tang, B.**, & Li, M. (2025). Diarization-Aware Multi-Speaker Automatic Speech Recognition via Large Language Models. *arXiv preprint arXiv:2506.05796*.

Tang, B., Zeng, B., & Li, M. (2024). TSELM: Target Speaker Extraction using Discrete Tokens and Language Models. *arXiv preprint arXiv:2409.07841*.

Geng, J., **Tang, B.**, Zhang, B., Shao, J., & Luo, B. (2024). Demo: FedCampus: A real-world privacy-preserving mobile application for smart campus via federated learning & analytics. In *Proceedings of the 25th International Symposium on Theory, Algorithmic Foundations, and Protocol Design for Mobile Networks and Mobile Computing (MobiHoc '24)*. ACM.

He, S., **Tang, B.**, Zhang, B., Shao, J., Ouyang, X., Nugraha, D. N., & Luo, B. (2024). Fedkit: Enabling cross-platform federated learning for Android and iOS. In *IEEE INFOCOM 2024 - IEEE Conference on Computer Communications Workshops (INFOCOM WKSHPS)* (pp. 1–2). <https://doi.org/10.1109/INFOCOMWKSHPS61880.2024.10620662>

TEACHING EXPERIENCES

Teaching Assistant for COMPSCI 201: Intro to Programming and Data Structures

The Computer Science Center, DKU

May. 2022 – May. 2023

Instructor: Dr. Jiang Long

- Developed quiz website using Django framework in Python – no bugs were reported in usage.
- Cooperated with other teaching assistants to come up with new quizzes and teaching plans for the course.
- Covered course material and homework in recitation and lab sections to improve students' grades.

AWARDS

- DKU Undergraduate Graduation with Distinction –2025
- DKU Signature Work with Distinction – 2025
- DKU Magna Cum Laude (top 15% GPA) award
- Dean's List (top 30% academic performance per term) and Dean's List with Distinction (top 10%)
 - Dean's List: Fall 2021, Fall 2022
 - Dean's List with Distinction: Spring 2022, Spring 2023, Fall 2024, Spring 2025
- 100% Tuition Scholarship for Undergraduate Program: UGRD Entrance Scholarship, JF Progressive Scholarship
- Summer Research Scholarship (SRS) 2023 & 2024
- Silver Medal, International Genetically Engineered Machine (iGEM) 2023 DKU Team Nov. 2023
 - Developed team wiki page independently.
 - Created a markdown editing website for easy collaboration.
- Nanjing Marathon Top 15% (4567/30000) Oct. 2023
- Yantai's Golden Sands Half-Marathon Top 5% (157/3764) June. 2023
- Champion, One-Kilometer Run, DKU Physical Fitness Test Oct. 2022

SIDE PROJECTS

Research Assistant for Search Engine Research Project

The Search So Team, DKU

Oct. 2022 – May. 2023

Instructor: Dr. Jiang Long

- Developed benchmarks to evaluate the performance of our self-developed search engine.
- Created DKU-Wiki in Vue and Django to demonstrate the search engine's functionality.

Leadership & Developer for Student Entrepreneurship Project

Oct. 2022 – Jan. 2023

The Roomie Student Entrepreneurship Team, DKU

- Developed an app enabling college students to find roommates based on MBTI personality types.
- Collaborated closely with leadership team members to drive project vision and execution.
- Recruited team members with a passion for programming and relevant technical skills.

Open-Source Developer for Repolab-Quiz

May. 2022 – July. 2022

DKU

Instructor: Dr. Jiang Long

- Independently developed a dynamic quiz website using Django that supports fill-in-the-blank questions, multiple-choice questions, and Java programming questions.
- Supported easy quiz generation using formatted Json files.
- Used as teaching material for COMPSCI 201.

SERVICES & LEADERSHIP

President for DKU Running Club

May. 2024 – Present

- Lead daily practices.
- Collaborate with other leaderships to build comfortable and inclusive running atmosphere.
- Compete in cross-countries, half marathons and marathons.

Vice President for DKU Basketball Club & DKU Basketball Varsity Team Member

May. 2021 – Jan. 2024

- Organized and coordinated basketball events, ensuring smooth execution and participation.
- Managed financial planning and budgeting for club events and activities.
- Competed in games representing DKU.

Volunteer for Duke China US-Summit

Aug. 2023

Drummer for band *Sky Steed*

Sept. 2021 – May. 2023

Volunteer for Health Education Program for high school students

Aug. 2021 – Aug. 2022

- Designed educational posters on vaccines and bacteria to promote health awareness.
- Delivered engaging presentations to high school students during lunch breaks, fostering understanding of public health topics.

SKILLS & HOBBIES

- **Languages**
 - English (fluent) with TOEFL score of 107, Mandarin (native)
- **Programming Languages**
 - Python, Java, JavaScript, SML-NJ
- **Frameworks and Tools**
 - PyTorch, Django, Vue, MySQL
- **Hobbies**
 - Running, Hiking, Basketball, Free Boxing, Drummer