Qixuan Wang

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EDUCATION

Northwestern University — **Evanston, USA**
Master of Science in Artificial Intelligence — September 2024 – December 2025
- **GPA:** 3.838/4.0

Duke Kunshan University — **Kunshan, China**
Bachelor of Science (BS) in Applied Mathematics and Computational Sciences — August 2020 – May 2024
- **Combined Cumulative GPA:** 3.64/4.0 **(**Dean's List: Fall 2020, Fall 2023)

Duke University — **Durham, USA**
Dual-Degree Study | BS in Applied Mathematics and Computational Sciences — August 2020 – May 2024
- **GPA:** 4.0/4.0 **(**Dean's List with Distinction: Spring 2023)

INTERNSHIP

Latitude Health – **AI Engineer Intern** — **San Francisco, USA**
- Contributed to the backend development of an AI-powered clinical platform — June 2025 – September 2025
- Developed and integrated AI agents within agentic workflows to automate clinical data processing and enable intelligent, end-to-end utilization review support

Xiaomi AI Lab – **Deep Learning Engineer Intern** — **Beijing, China**
- Optimized model training by tuning hyperparameters, learning rate scheduling, etc. — June 2024 – August 2024
- Trained and deployed a text-to-speech (TTS) model for Xiaomi's voice assistant, utilizing diffusion models for speech synthesis and GPT-2 for linguistic modeling
- Fine-tuned the GPT-2 model on a large-scale speech dataset, enhancing speaker similarity, prosody, and naturalness of generated speech

Innoscience IT Department – **Software Engineer Intern** — **Suzhou, China**
- Developed a Python program for yield testing and anomaly detection — July 2022 – August 2022
- Analyzed product yield data using descriptive statistics, hypothesis testing, and regression analysis, providing actionable insights to optimize manufacturing processes and improve product quality

Luoyang Energy Storage and Power Conversion System Co., Ltd. – **AI Research Intern** — **Luoyang, China**
- Applied LLMs and AI agents to support internal research in the battery domain — Every Winter Break since 2022
- Designed LLM-powered knowledge base and conversational systems to organize and query technical documents, industry reports, and battery research materials, improving R&D efficiency and technology roadmap analysis

PUBLICATIONS

- Italo Simonelli and **Qixuan Wang**. An Elementary Proof of the Law of Iterated Logarithm for Minima and New Extensions of the Borel-Cantelli Lemma. 2022.
  Available at SSRN**;** listed on SSRN's Top Ten download list for Probability & Statistics eJournal

MACHINE LEARNING PROJECTS

Bark Voice Cloning
- Built an all-in-one TTS toolkit that unifies multiple mainstream models into one-click training and inference scripts with an easy-to-use Gradio UI for rapid voice cloning across English and Chinese speech [Code]
- Received over 3,000 stars on GitHub; one of the Top 20 applications (sorted by trending) on Hugging Face
- Interviewed by *South Reviews*, a famous politics and economics magazine in China, and shared my thoughts on the recent development of AI speech technology [Article in Chinese]. Invited by *Himalaya* to participate in a live stream about AI companions, which attracted around 1,000 viewers [Poster in Chinese]

AI Battery Research Agents

- Developed a full-stack multi-agent AI system that simulates a battery research engineering team, integrating RAG-based knowledge access to support reasoning, literature analysis, and decision-making over battery papers [Code]

HANDS-ON ARTIFICIAL INTELLIGENCE EXPERIENCES

- **A content creator**: Produced over 40 videos showcasing applications of generative AI such as speech synthesis, large language models, and stable diffusion on bilibili, which is one of the most popular video-sharing platforms in China. My channel now has over **15k** followers and my videos have more than **1.5 million** views in total

- **Open-source projects**: Developed numerous deep learning applications and all of them are open-source. My GitHub projects have received over **3.9k** stars in total. My speech synthesis project was one of the Top **20** applications (sorted by trending) on Hugging Face

- **Entrepreneurship & Product Development**: Founded DoingDream AI, an all-in-one platform offering multimodal AI services including voice cloning, conversion, and music generation. Built the platform full-stack, rapidly attracted over **19k** registered users and over **1k** monthly paying users, initiated discussions with venture firms like Y Combinator China, and won **second place** at the 2nd Midwest Chinese Entrepreneurship Competition at Northwestern University

RESEARCH EXPERIENCES

Diffusion Probabilistic Models [Code] **Durham, USA**
Supervised by Professor Jian-Guo Liu (Duke University) May 2023 – December 2023

- Adopted the input perturbation method to the single image generation and proposed an improved version of the single image denoising diffusion model (SinDDM)
- Achieved better generated image quality compared to the original method and planned to apply the new algorithm to speech synthesis and text generation

The Borel-Cantelli Lemma and the Growth Rate of Partial Maxima **Kunshan, China**
Supervised by Professor Italo Simonelli October 2021 – June 2022

- Presented a new, simple proof of the law of iterated logarithm for minima of uniform random variables and proved new extensions of the Borel-Cantelli Lemma
- Published a preprint on SSRN – An Elementary Proof of the Law of Iterated Logarithm for Minima and New Extensions of the Borel-Cantelli Lemma

RELEVANT COURSEWORK

- Relevant courses taken at **Northwestern University**: Data Science, Machine Learning, Deep Learning, AI Platforms (Azure), Tech Product Management (Kellogg), Introduction to AI, Natural Language Processing, Theory & Algorithms for LLMs, Reinforcement Learning, Electrochemical Energy Materials and Devices
- Relevant courses taken at **Duke Kunshan University**:
  Introduction to Applied Statistical Method (R), Introduction to Data Science (Python), Introduction to Programming and Data Structure (Java), Linear Algebra, Probability and Statistics, Numerical Analysis (Julia), ODE and Dynamical Systems (Mathematica), Advanced Introduction to Probability, Abstract Algebra, Partial Differential Equations
- Relevant courses taken at **Duke University**:
  Real Analysis (MATH 431), Statistical Learning and Inference (STATS 432), Financial Derivatives (MATH 582)

TECHNICAL SKILLS

Programming languages: Python, R, Java, Julia, LaTeX, Markdown, Mathematica
Machine learning: PyTorch, TensorFlow, SciPy, Gradio, AWS, Azure
Data analysis: Pandas, NumPy, Matplotlib, SQL
Battery technology: Li-ion and solid-state chemistry fundamentals; SOC and SOH prediction for Li-ion batteries using deep learning techniques

LEADERSHIP EXPERIENCES & SERVICE

- Director of the Events Department at Northwestern Innovation Hub [Link]
- Founder of United Platform sponsored by DKU Innovation Incubator: From Fall 2021 to Spring 2022 [News]
- Vice President of DKU Soccer Association: From Fall 2021 to Spring 2022 [News]