Ming Lei

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Education

Queens College, City University of New York — New York City, NY
Master of Arts, Computer Science — Jun. 2022 - Dec. 2023
Relevant Coursework: Natural Language Processing, Artificial Intelligence, Applied Data Science, Advanced Python Programming, Design and Analysis of Algorithms

Queens College, City University of New York — New York City, NY
Bachelor of Science, Computer Science — Jan. 2017 - Dec. 2020
Honors: *Cum Laude*, Provost's Scholar

Research Interests

Low resource natural language processing; transfer learning; educational data mining.

Research Experience

Natural Language Processing Research Opportunity — Jul. 2025 - Present
Queens College
Faculty Advisor: Professor Alla Rozovskaya

- Conducting research on state-of-the-art transformer-based language models such as mBART and mT5, focusing on their applications in grammatical error correction task.
- Studying transfer learning techniques, to enhance model performance on low-resource languages for grammatical error correction.
- Developing data preprocessing scripts to clean and prepare large-scale multilingual datasets for model training and evaluation, and implementing model training and benchmarking pipeline using Python and PyTorch frameworks.
- Investigating the impact of various hyperparameters on model performance and contributing to the preparation of a research paper for publication in academic conferences.

Applied Data Science Research Opportunity — Jan. 2024 - Present
Queens College

- Collecting and analyzing student tutoring session and academic performance data via descriptive and inferential statistical methods using Python.
- Building an error-resistant student check-in application using Microsoft Power Apps for improved data accuracy and efficiency in data collection, and developing data visualization dashboards via Microsoft Power BI.
- Collaborating with a team of 5 to design and implement data collection strategies, ensuring compliance with data privacy regulations and ethical standards.
- Reporting and presenting findings and data-driven decision-making departmental innovations to stakeholders, leading to analytics-based curriculum adjustments.

CSCI 780 Special Topics in CS: Post Quantum Cryptography — Aug. 2023 - Dec. 2023
Queens College
Faculty Advisor: Professor Delaram Kahrobaei

- Studied foundational concepts and mathematical principles underlying post-quantum cryptographic algorithms, including lattice-based and multivariate polynomial cryptography.
- Worked wih two undergraduate students on security analysis of lattice-based cryptographic schemes, identifying potential vulnerabilities and proposing mitigation strategies.
- Implemented demonstrating prototypes of selected post-quantum cryptographic algorithms using Python, evaluating their performance and security properties.
- Composed a comprehensive written research report summarizing findings, and exhibited the research outcomes via an in-class oral presentation to faculty and peers.

Teaching Experience

Adjunct Lecturer, Mathematics, Engineering, and Computer Science — New York City, NY
LaGuardia Community College, City University of New York — Sept. 2025 - Present

Courses Taught: Intro to Computer Science (MAC 101); Advanced C++ Programming (MAC 125)

- Designed and delivered engaging lectures on two core computer science courses, including topics such as flow-of-control statements, functions, recursions, arrays, pointers, inheritance, polymorphism, and linked lists.
- Created and provided in-class lab practice problems to students and guided them through the solutions.
- Held weekly office hours, developed and graded assessments, including quizzes, assignments, and exams, ensuring alignment with course objectives.

Recitation Facilitator, Mathematics — New York City, NY
Queens College, City University of New York — Aug. 2024 - Dec. 2025

Courses Facilitated: College Algebra for Precalculus (MATH 115); Precalculus (MATH 122)

- Facilitated weekly recitation sessions for two mathematics courses, assisting students in understanding complex concepts such as functions, graphs, trigonometry, and exponential and logarithmic equations.
- Practiced supplementary problems and past exams to reinforce learning and prepare students for assessments.
- Provided individualized support during recitation sessions, addressing student questions and clarifying course content to improve academic performance.

Continuing Education Instructor — New York City, NY
Lehman College, City University of New York — Jun. 2024 - Dec. 2024

- Led Lehman College's Generative AI initiative in collaboration with its Provost's Office, designing a comprehensive course on Generative AI tools and applications.
- Facilitated a 5-week pilot workshop series on Generative AI for adult learners, covering topics such as prompt engineering, ethical considerations, and practical applications across various industries.
- Gathered and analyzed participant feedback to refine course content and delivery methods for the college's future development of credit-bearing courses in Artificial Intelligence.

Work Experience

NSF S-STEM Scholarship Award — New York City, NY
Project Coordinator | Queens College, City University of New York — Feb. 2024 - Present

- Conducted quarterly 1-on-1 advising sessions with over 60 scholarship recipients to monitor academic progress, provide career guidance, and address personal challenges.
- Coordinated and organized monthly professional development workshops, focusing on career readiness, technical skills, and networking opportunities.
- Collaborated with departmental faculty and college administration to improve Computer Science student recruitment and retention strategies via quantitative data analysis and qualitative feedback collection.

Learning Commons - Academic Support Center — New York City, NY
Peer Tutor | Queens College, City University of New York — Sep. 2022 - Dec. 2023

- Tutored a range of subjects in Computer Science and Math, such as Object-Oriented Programming, Discrete Math, and Data Structures, through both in-person meetings and online.
- Developed and distributed studying materials and resources to students.
- Attended professional development workshops on empathetic approaches to teaching.

Work Experience (Continued)

Associated Application Developer Alpharetta, GA
Automatic Data Processing (ADP) Mar. 2021 - May 2022

- Probed race conditions across distributed systems and developed a report dashboard to monitor data lineage.
- Built a CI/CD pipeline to automate unit and integration testing processes, reducing deployment time of hotfixes.

Presentations

"Data-Driven Decision Making at the Learning Commons", Queens College Assessment Showcase, New York City, NY, 2025
"Leveraging CUNY's Digital Toolbox to Drive Student Success", CUNY IT Conference, New York City, NY, 2024

Other Experiences

Student Affairs at Queens College May 2023 - Aug. 2024
New Student Orientation Coordinator

Girls Who Code at Queens College Mar. 2019 - Feb. 2021
Course Facilitator

The Estee Lauder Companies Hackathon Oct. 2019
First Place Winner

Skills

Programming Languages:	Python, C++, Java, MATLAB, R, JavaScript
Tools:	Git, LaTeX
Frameworks:	PyTorch, NumPy, Pandas, Scikit-learn
Other:	Linux (Ubuntu, Debian, RHEL), macOS, Windows

Additional

Awards:	Blackstone LaunchPad Competition Winner (2023), Grow with Google Challenge Scholarship (2018)
Certificates:	AWS Certified Cloud Practitioner, Udacity Frontend Web Developer Nanodegree, IBM Data Science Certificate