

Qianyu Zheng

- 848 Spring St. NW, Atlanta, GA, 30309 • +1 404-960-4914 • qzheng75@gatech.edu
- Personal website: qzheng75@github.io • LinkedIn: <https://www.linkedin.com/in/zheng-qianyu-365b60250/>

EDUCATION

Georgia Institute of Technology, Atlanta, GA

August 2022 – May 2025 (Expected Graduation)

- Third-year Computer Science with current GPA: 4.0

Skills

- Programming Languages: Python, Java, C++, C
- Computer Science Knowledge: Excel, Machine Learning, Cloud Computing (AWS), Databases, Graph Neural Networks
- Concepts: Statistics, Linear Algebra, Combinatorics

Awards/Certifications

- AWS Certified Cloud Practitioner (CLF-C02), Machine Learning Specialty (MLS-C01)
- Microsoft Excel Associate (MO-200) and Microsoft Excel Expert (MO-201)
- Georgia Tech President's Undergraduate Research Awards (PURA) for research on developing robust force fields.

EXPERIENCES

Computational Chemistry group at Leibniz Institute of Plant Biochemistry, *Researcher*

May 2024 - Present

- Spearheaded protein engineering research, developing **scalable and visualizable** strategies to analyze protein families of millions of sequences and extract meaningful insights via sequence similarity networks and **graph analysis**.
- Crafted biologically significant data splitting strategies with **clustering and evolutionary algorithms**, ensuring fair model evaluation and enhancing the reliability of research outcomes.
- Selected as one of the five computer science students that presented at 2024 RISE conference to give a 15-minute professional presentation on research. Enhanced communication skills.

Georgia Tech Undergraduate Research, *Researcher*

May 2023 - Present

- Researching the applications of Graph Neural Networks (GNNs) in material science, under the guidance of **Assoc. Prof. Victor Fung** at Georgia Tech.
- Conduct independent research to develop more **stable machine learning force fields** for molecular dynamics simulation.
- Developed proficiency in GNNs, PyTorch, deep learning, and research methodologies.

PROJECTS

Participant, Major-League Hacking Hacklytics 2023: Data Science Hackathon

February 2023

- Collaborated in a 4-member team to develop "Stock Tweet," a project tailored for public relations teams to **analyze social media impact on stock prices**.
- Trained a word2vec model to **predict price impact** of future tweets and leveraged **GPT** to generate customized sample tweets based on trending topics and past social media performance.
- Presented analysis in an interactive web application built with **Flask** and deployed with **Google Cloud**.

Team Leader, Major-League Hacking HackGT 2023

October 2023

- **Led** a 4-member team in developing "Plot Visualizer," a tool to **improve accessibility** for neurodivergent STEM students.
- Designed an **end-to-end pipeline** to identify graphs, extract data, and generate visualized data series from complex images.
- Created a **Flask/HTML web application** showcasing the pipeline and allowing students to seamlessly visualize graph images. Improves comprehension of graph trends and relationships.

ACTIVITIES

Teaching assistant, CS 1331: Introduction to Object Oriented Programming

January 2023 – May 2024

- Collaborate within a team of 42 TAs, led by Professor Richard Landry from the College of Computing.
- Lead weekly 75-minute recitations for 50 students, enhancing communication skills and instructional effectiveness.
- Work as the **forum lead** that monitors the Q&A forum. Instructional excellency recognized by students with an average rating of **4.9/5** on overall effectiveness in CIOS surveys.

Lecturer, Python/AI bootcamp at University of Maryland

July 2024 – August 2024

- Lead **deep learning** lectures for **200** AI beginners, focusing on **PyTorch** applications in regression and classification tasks.
- Contribute to course design and teaching methodology as part of a 20-instructor team, enhancing **AI education effectiveness**.
- Develop a **cutting-edge AI curriculum** emphasizing hands-on experience in model development for students.