Jason Q. Qin
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EDUCATION

Columbia University, School of Engineering and Applied Sciences, New York, NY 2023 – 2027
- **Major: Computer Science**
- **Egleston Scholar:** top 1% of Columbia Engineering's undergraduate students, recognized for extraordinary achievements and promise as an engineering and applied science student, researcher, and leader.

Illinois Mathematics and Science Academy, High School Diploma**,** Aurora, IL 2020 – 2023

RELEVANT COURSES

- **Math**: Abstract Algebra, Differential Equations, Number Theory, Linear Algebra, Multivariable Calculus.
- **Computer Science**: Advanced Programming, Machine Learning, Linux & Cybersecurity, Data Structures, Discrete Mathematics.

RELEVANT SKILLS

- **Software:** Python, Django, OpenCV, Jupyter, Java, C, C#, HTML, CSS, R-programming, SQL, Linux Bash, Git, Vim, Unity, Qiskit, Q#, Microsoft Office/Excel.
- **Tools:** Machine Learning/Artificial Intelligence, Augmented/Virtual Reality, Computer Vision, Algorithms, Data Analysis, Cybersecurity, Quantum Software. Visualizations, Graphic Design, Video Editing.

EXPERIENCE

Oak Ridge National Laboratory, Oak Ridge, TN June 2024 – Present
- Machine Learning Research Intern, Computer Science and Mathematics Division.
- Research on Federated Learning and Cybersecurity for decentralized data.

Columbia University, New York, NY January 2024 – Present
- Undergraduate Researcher, Computer Graphics and User Interfaces Laboratory, Department of Computer Science.
- Research on computer vision and gaze analysis using Machine Learning and feature detection for multi-selection in Augmented Reality systems.

Northwestern University, Evanston, IL October 2021 – October 2022
- Research Intern, Computational Photography Laboratory, Department of Computer Science.
- Research on three-dimensional computational imaging and machine vision for skin texture applications.

Stony Brook University, Stony Brook, NY September 2019 – August 2021
- Research Intern, image based computational fractal dimension analysis applied to cancer detection.
- First author of published IEEE conference proceedings paper and Joint Mathematics Meetings abstract.

PROJECTS

Variational Quantum Eigensolver
- Studied Quantum Software at **MIT Lincoln Laboratory, Beaver Works Summer Institute**, Cambridge, MA
- Implemented the Variational Quantum Eigensolver in Qiskit code to find the ground state Hamiltonian through quantum logic computations and a gradient descent optimizer.
- Awarded the Best Video Award for presentation and implementation with cloud-based quantum computers.

LEADERSHIP AND ACTIVITIES

- Application Development Initiative (ADI) at Columbia, computer science and technology.
- Organizing Committee Member, Columbia University Institute for Operations Research and the Management Sciences (INFORMS) Board.
- Events Chair, Team Representative, Columbia University Scholastic Bowl.

SELECTED HONORS AND AWARDS

- Dean's List, Academic Honor, Columbia University, 2023-Present
- Almaworks Fellowship, Columbia Organization of Rising Entrepreneurs (CORE) Startup Accelerator, 2024
- United States Presidential Scholars Semifinalist, 2023
- National Merit Finalist, 2023
- American Math Contest 12, Honor Roll, American Invitational Math Examination, 2023, 2022
- National Community Service Award – Ambassador from the United Nations – USA, 2022, 2021

OTHER ACTIVITIES

- Cello, Piano, Licensed Soccer Referee, Co-founder of free math and computer science education programs.