

Jeffrey Gong

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EXPERIENCE

Open Source Developer - Research Mentee

Sep 2021 - Present

Qiskit Advocate Mentorship Program

Worked with a PhD candidate at MIT and a mentor at IBM Quantum on implementing lattice surgery methods to the open-source repository, qtcodes (Quantum Topological Codes)

Key Accomplishments:

- Generalized the TopologicalCircuit and TopologicalRegister class using object-oriented Python to handle logical qubits of different types (repetition, XXZZ, XZZX)
- Developed a concise circuit drawing method to reduce clutter created by logical qubits

Digital Intern

Jun 2021 - Aug 2021

Pfizer | Collegeville, Pennsylvania

Worked with the Commercial Client Partner and Product Management team within Pfizer Digital on 3 projects

Key Accomplishments:

- Assisted in the digitization and templization of Launch playbooks
- Conducted preliminary UAT of launch tools in Figma
- Gained knowledge and experience with the SDLC (software development life cycle) and DevOps

RELEVANT PROJECTS

Web and Database Developer @ Yale Undergrad Research Association

Oct 2021 - Present

- Used HTML, CSS, Javascript, Django to maintain and update the Graduate-Undergraduate Mentorship Initiative and Research Database

Yalies.io Development Team @ Yale Computer Society

Sep 2021 - Present

- Used Flask, Javascript, and CSS to help develop and design the yalies.io open-source repository and website

Topological Data Analysis @ Ursinus College

Jun 2019 - Aug 2021

- Lead researcher in a project on the applications of discrete stratified Morse theory on Vietoris-Rips Complexes
- Used SageMath and Python to create an application that visualized underlying VR graphs using adjacency matrices

EDUCATION

Yale University | B.S. in Computer Science and Mathematics, B.S. Applied Physics (prospective)

2021-2025

- Yale University Quantum Computing (Project Leader), Yale Computer Society (Development Team), Yale Undergraduate Research Association (Board Member), Yale Chess Club, Society for Physics Students

Qiskit Global Summer School | Certificate of Quantum Excellence

Jul 2021 - Aug 2021

- Gained knowledge and hands-on experience with IBM's Qiskit and the basics of quantum computing and Quantum Machine Learning

Methacton High School | High School Diploma

2017-2021

- GPA: 111.3/100 (Rank 1 out of 375) SAT: 1570/1600 (National Merit Finalist)
- Class officer (sophomore, junior, and senior) and student ambassador
- **President**, National Honor Society, **President**, Future Business Leaders, **President and Founder**, Econ Club, **Co-President**, STEM Research Team

SKILLS + LANGUAGES

Java | Python | HTML/CSS | MERN stack (MongoDB, Express.js, React.js, Node.js) | Qiskit | Git | Javascript