Ace Chun

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Education

Massachusetts Institute of Technology 2024 – 2028 (expected)
Prospective 6-3 (Computer Science) and STS (Science, Technology, and Society) Major *Cambridge, MA*

- **Credits:** 6.100A, 6.1010, 6.2020, 18.01, 18.02, 18.03, 18.C06, 5.111, 8.01, 6.S191, 18.063, 6.1210, 6.3900, 8.02, 7.016, STS.012

Montgomery Blair High School 2020 – 2024
Science, Mathematics, and Computer Science Magnet *Silver Spring, MD*

- **Computer Science Coursework:** Fundamentals of Computer Science, Algorithms and Data Structures, Analysis of Algorithms, Networking and Cybersecurity, Computational Methods, Future of Programming Languages, Intro to Artificial Intelligence
- **Mathematics Coursework:** Analysis II (Multivariable Calculus and Differential Equations), Applied Statistics, Introduction to Logic, Discrete Math, Complex Analysis, Quantum Physics (survey course)

MIT Lincoln Labs Beaver Works Summer Institute 2022
Quantum Software *Cambridge, MA*

Experience

Research Intern with the Information Technology Laboratory 2025
National Institute of Standards and Technology *Gaithersburg, MD*

- Worked with Dr. Justyna Zwolak and Dr. Merritt Losert on optimizing latched readouts of quantum dot hybrid qubits.
- Designed classical computer vision pipelines and trained deep convolutional neural networks for precise feature localization.

Research Intern with MIT FutureTech 2024 – 2025
Computer Science and Artificial Intelligence Lab (CSAIL) *Cambridge, MA*

- Worked with Dr. Jayson Lynch as part of the Measuring Progress in Algorithms group.
- Surveyed and analyzed time and space complexity of quantum algorithms.
- Contributed data to the Quantum Economic Advantage Calculator.

Teaching Instructor for Quantum Software 2024
Beaver Works Summer Institute, MITRE and Lincoln Labs *Cambridge, MA*

- Taught supplementary material about Quantum Computing to high school juniors and seniors.
- Lectured on mechanics behind mathematical qubit representations and Grover's algorithm.
- Provided assistance to students during final team projects, including an implementation of the Variational Quantum Classifier.

Research Intern at the Collaborative Controls and Robotics Lab 2023 – 2024
University of Maryland, Department of Mechanical Engineering *College Park, MD*

- Worked under Dr. Yancy Diaz-Mercado on robotic actuation and computer vision projects.
- Created training data annotation software from HTML, CSS, and JavaScript for Google DeepMind's TAPIR point-wise tracking model.
- Researched agent tracking and control theory for MagnetoSuture, an autonomous, minimally invasive, and tetherless surgical system.
- Attended IEEE Integrated STEM Education Conference 2024: Facilitating a Hands-On Approach to Open and Modular Engineering Projects through Software Design and Data Collection.

Regional Director 2021 – 2024
Steel City Codes *Washington, D.C.*

- Organized free programming education summer camps and classes for students from grades 4-8.
- Led outreach efforts to students of historically underprivileged backgrounds, aiming to level the playing field of computer science opportunities.
- Taught introductory to intermediate level Python, Java, and Web Design courses.

Skills & Interests

Skills: Python, JavaScript, ReactJS, Pandas, Q#, LaTeX, Java, HTML/CSS, Julia, MS Excel, Git