

Andrew Choi

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EDUCATION

University of Illinois Urbana-Champaign

B.S. Statistics + Computer Science

Champaign, IL

Expected Graduation: May 2028

Junior Standing.

Activities: Quant at Illinois, Gies Disruption Lab, Association for Computing Machinery, Financial Engineering Club

Courses: Data Structures, Introduction to Statistics & Probability, Discrete Structures, Linear Algebra With Computational Applications, Multivariable Calculus

Thomas Jefferson High School for Science and Technology (TJHSST)

Alexandria, VA

Advanced Studies High School Diploma

Aug 2021 – Jun 2025

Activities: Student Government Association Technology Committee Director, Science Olympiad, Varsity Track and Field.

Courses: Artificial Intelligence 1&2, Mobile/Web App Development, Organic Chemistry 1&2, Concrete Mathematics

EXPERIENCE

Antithesis

Vienna, VA

Software Engineer Intern

June 2026 – Present

- Built a log templatizer for causal analysis of deterministic simulation testing. Extensive use of Rust, Python, NixOS and nixpkgs.
- Researched and implemented shrinking methodology in property-based testing and fuzzing of distributed systems.

Mindspark Tutors

Alexandria, VA

Tutor, Software Engineer

Oct 2025 – Feb 2026

- Tutored students across TJHSST's CS curriculum, developed internal tools for payment as well as tutor and student management.

George Washington University, Dept. of Electrical & Computer Engineering

Washington, DC

Researcher

Aug 2024 – Jul 2025

- Pioneered research using electrical noise as a novel diagnostic tool, able to detect lattice-enabled nuclear reactions (LENR) at 9 orders of magnitude more sensitive than standard calorimeters.
 - Applied data science and machine learning libraries in Python (NumPy, SciPy, Matplotlib, pandas), electrochemistry and circuitry to experimental analysis.
 - Presented results at the 26th International Conference on Condensed Matter Nuclear Science.
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SKILLS

Programming Languages: Python, Java, SQL, C++, JavaScript, TypeScript, HTML, R.

Libraries/Tools: SciPy, NumPy, pandas, Matplotlib, StatsCloud, Flask, sqlite3, Android Studio.

PROJECTS

MariaDB

Feb 2026 – May 2026

MariaDB, Apache Parquet, Apache Iceberg

- Developed a native plugin to export MariaDB tables as Parquet files and store them in AWS S3 blob storage.
- Converted to column-store format for significantly faster querying.

PythonMaxxing

Feb 2026

Flask, React, Cron

- Full-stack application designed to test fluency in Python list and dictionary comprehensions.
 - Formulaically generates and verifies modular comprehension queries according to a predefined grammar.
 - Personal high score of 14 comprehensions in 2 minutes.
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ACCOMPLISHMENTS & HONORS

2025 M3 Mathworks Math Modeling Challenge Semifinalist

Spring 2025

- Was successful in triage and achieved the placement of semifinalist (<1%) in the 2025 M3 Mathworks Math Modeling Challenge, entailing a \$1,500 scholarship.
- Implemented statistical models involving vector autoregression and the heat equation, developed an entropy-weighted heuristic determination method, and wrote a report modeling and addressing the impact of heat waves on electrical grids of impoverished neighborhoods.

USA Computing Olympiad (USACO) Gold Division

Feb 2025

- Qualified for the second-highest competition tier; developed advanced proficiency in algorithms and data structures in C++ and Python.

National Merit Scholarship Finalist

Sep 2024

- Advanced to the finalist stage for the National Merit Scholarship (<1%).