

Alan Tao

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Education

Georgia Institute of Technology - Atlanta, Georgia

Expected Graduation: May 2025

Candidate for Bachelor of Science in Computer Science & Minor in Mathematics. (GPA: 4.0)

- Threads/Concentrations: Modeling and Simulation, Systems and Architecture
- Relevant Coursework: Linear Algebra, Multivariable Calculus, Data Structures and Algorithms, Probability and Statistics, Discrete Mathematics

Northview High School - Alpharetta, Georgia. (GPA: 3.826)

Graduation: May 2021

Skills

- **Languages:** Java, C, C++, Python, HTML, CSS
- **Frameworks and Tools:** Git/Github, Django, Swing, JavaFX, Selenium, JMathPlot, JUnit

Projects

STDUTIL | C, Git, Github

March 2021 - Present

- Created and currently maintain an open-source library for widely used data structures for the C programming language so programmers have an optimized, efficient tools to work with.
- Organized development progress with the Git version control system, and code is available on Github.

Equation.graph() | Java, Swing, Calculus, Numerical Methods

August 2020 - October 2020

- Created a graphing calculator using the Swing GUI library capable of displaying single variable, real value functions, parametric functions, polar functions, and 2-D vector fields.
- The app can compute integrals, derivatives, intersections of equations, roots, and other properties of functions using numerical methods.

TecBook | Python, Django, JavaScript, React

October 2021

- Created, during HackGT8, the backend of the TecBook website where college students can place their used textbooks up for sale, connecting them with new students who wish to purchase discounted textbooks.
- The website allows users to create, and delete listings as well as search for listings by UUID.

Three Body System Simulator | Java, Swing

January 2020

- Created an app that computes and displays the motion of three masses under each other's mutual gravitational influence using Newton's Universal Law of Gravitation, classical kinematics, and numerical integration.

Work Experience

Undergraduate Teaching Assistant | College of Computing:

January 2022 - Present

- Professor's teaching aide for an honors course in discrete math. Responsible for assisting students' understandings by answering questions during office hours and online forums, and grading student assignments.

Server | IHOP

April 2021 - August 2021

- Food service worker responsible for providing a satisfactory dining experience for all guests and handling complaints.

Awards

Eagle Scout | Scouts BSA

August 2020

- Awarded for the completion of a minimum of twenty-one merit badges in a diverse range of topics, completion of service hours, experience in troop leadership positions, a community service project, among several other requirements.

Dean's List | Georgia Institute of Technology

Fall 2021

- Awarded to students enrolled full-time in letter grade courses, an academic standing of 'Good', no incomplete grades, and a grade point average of 3.00.