ALEX LEVY

(301) 651 - 0628 • ajlevy246@vt.edu • https://alexlevy.me • Olney, MD

EDUCATION

Virginia Tech– Blacksburg, VA **May 2026**
B.S.– Computer Science, Applied Discrete Mathematics **3.97 GPA**
- Relevant Coursework: Graph Theory, Combinatorics, Optimization & Machine Learning, Programming Languages & Computer Systems

Montgomery College– Rockville, MD **May 2023**
A.S.– Mathematics
- Dual Enrollment Degree - earned 95 college credits while in high school
- Relevant Coursework: Linear Algebra, C++ Programming, Multivariable Calculus, Intro Discrete Math

---

RELEVANT EXPERIENCE

Teaching Assistant **August 2025 - Present**
Virginia Tech– Blacksburg, VA
- Provided tutoring and feedback to 250+ students in Python programming at the intermediate level.

SKILLS

- Programming Languages: Python, C, Java, HTML/CSS
- Tools & Frameworks: Git, Numpy/Sympy, Jupyter, Linux/WSL, Next.js, React, TailwindCSS
- Algorithms: Parser Design (Earley, Pratt), Graph-Theoretic (Dijkstra, Bellman-Ford, Prim), Quantum Basics
- Mathematics: Graph Theory, Abstract Algebra, Probability, Extremal Combinatorics, Polya Theory

---

PROJECTS EXPERIENCE

Portfolio Site **July 2025 - Present**
- Built and deployed a responsive personal site using Next.js and TailwindCSS to showcase academics and software projects.
- Integrated Framer Motion animations with interactive project modals and API-driven content.

LevyCAS **May 2025 - August 2025**
- Engineered a multivariate computer algebra system written in pure Python, equipped with a Pratt parser for converting natural language expressions into Python objects.
- Implemented automatic simplification, polynomial greatest common divisors, symbolic integration and differentiation, various numeric operations, and more.
- Developed a public API and deployed an interactive demo using Gradio and Hugging Face Spaces.

Eagle Scout Project **June 2023 - August 2023**
- Designed, planned, and led the construction of six 42 sq ft hexagonal garden beds to improve a local community park.
- Directed 20+ volunteers over three months, coordinating schedules and delegating tasks to ensure on-time completion.
- Managed logistics and materials procurement by collaborating with park rangers and county officials.

AWARDS AND HONORS

- T.W. Hatcher Scholarship, *Virginia Tech* - 2025
- Ray A. Gaskins Scholarship, *Virginia Tech* - 2024 & 2025
- Richard L. and Georgia W. Kimball Scholarship, *Virginia Tech* - 2024
- Clifford Beck Award for Excellency in Physics, *Montgomery College* - 2023
- Eagle Scout, *Troop 457 Rockville, MD* - 2023
- AP Scholar with Distinction - *College Board*, 2023