

## Moses (Eli) Katz

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## Education

### University of Maryland

B.S., Computer Engineering, GPA 3.76

College Park, MD

Expected May 2028

## Skills

Programming: Python, C, JavaScript, Go, Prolog, Lua, Haskell, Zig

Software: Linux command line, shell scripting, HTML, CSS, Markdown, Microsoft Excel, LaTeX

Laboratory: oscilloscope, woodshop tools, electric circuit analysis

## Independent Projects

### Anki add-ons

Aug. 2025-Present

- Integrate Python, markup, and DSLs to augment existing complex software
- Apply graph theory and other pure maths for novel studying strategies

### DKL9

June 2023-Present

- Publish 150+ posts to document activities and concepts
- Devised and implemented JavaScript/CSS maths puzzle game

### Roraer input method

July 2025-Oct. 2025

- Tailored a keyboard layout to work efficiently on the structure of source code
- Introduced fuzzy-matching features to reduce keystrokes by 37%

### voxels

June 2025-July 2025

- Developed a 3D game to interact with ~100 complex objects
- Optimised program to run at 30+ FPS despite limits of Python and old hardware

### Zcourse

Dec. 2024-Apr. 2025

- Programmed a novel Arduino-based device to intelligently sense and influence sleep

### Desmos demos

Sept. 2020-May 2024

- Demonstrated QED, 3D geometry, physical chemistry, and more
- Built 600+ graphs, many interactive
- Pushed limits of a barely-Turing-complete atypical programming environment

## Leadership Experience

### University of Maryland Over Terrain Vehicle project

College Park, MD

Team Member

Sept. 2025-Dec. 2025

- Designed and implemented wiring of robot with 4-wheel drive and 4 sensors
- Pinpointed limitations of flawed hardware to maintain progress on mission
- Contributed to 3 design presentations with Google Slides and CAD

### FIRE Quantum Machine Learning

College Park, MD

Team Member

Jan. 2025-Sept. 2025

- Replicated and taught contemporary quantum computing research with Qiskit

### The Go Club at UMD

College Park, MD

President

Sept. 2024-Present

- Organise 8 meetings per month with 10+ participants