

# DANIEL MIHOVCH

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## Education

<b>University of Delaware</b> <i>Bachelor of Science in Computer Science, conc. Systems &amp; Networks</i>	Newark, DE <i>Aug. 2023 – May 2027 (Expected)</i>
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## Experience

<b>Four Youth Productions</b> <i>Studio Operations Assistant &amp; System Administrator</i>	Wilmington, DE <i>June 2025 – Present</i>
– Maintained studio electronic systems: security system, NAS system, multiple Apple desktop systems – Planned and prepared lessons for over 300 students across 4 schools – Managed multiple community events to showcase student work	

<b>Four Youth Productions</b> <i>STEM Instructor</i>	Wilmington, DE <i>Feb. 2025 – Present</i>
– Designed & led engaging after-school STEM lessons for underrepresented youth in Wilmington, DE public schools. – Focused lessons teaching foundational environmental science, biology, physics, computer science and chemistry. – Taught students from grades Pre-K – 8th	

<b>University of Delaware CIS</b> <i>Computer Architecture &amp; Systems Programming Teaching Assistant</i>	Newark, DE <i>Jan. 2025 – Present</i>
– TA for CISC210: Introduction to Systems Programming, CISC260: Computer Architecture & Assembly Language – Assisted in teaching students the C programming language, ARMv8 assembly, Bash, Unix systems, and interacting with hardware from software via Raspberry Pi – Assisted with lecture, held office hours, graded assignments	

<b>University of Delaware CIS</b> <i>Introduction To Programming Teaching Assistant</i>	Newark, DE <i>Jan. 2025 – Present</i>
– TA for CISC106: General Computer Science for Engineers – Led a weekly practicum session for 25+ students, consisting of a mini-lecture and activity, teaching the fundamentals of computer science with the Python programming language – Held office hours, graded assignments	

## Projects

<b>Piemulator   C, ASM, Bash, Raspberry Pi</b>	November 2025 – Present
– Created a Hardware Abstraction Layer that serves as a drop-in replacement for the University of Delaware's libsense Raspberry Pi Sense Hat library – Focused on portability and ease of use, currently only depends on pthreads. Earlier versions also depended on ncurses, but this has since been simplified to ANSI escape codes – Students can test and develop projects without always needing access to the physical Raspberry Pi, simply needed to link against my libpie instead of the provided libsense	

<b>16 bit Virtual Machine   C</b>	August 2025 – Present
– Single tasking, 16 bit toy virtual machine written in C – Implemented my own risc-style ISA featuring a segmented memory model and multiple addressing modes – Currently writing a companion assembler to avoid having to write raw bytecode programs	

## Technical Skills

**Languages:** C, Go, Bash, Python, Typescript/HTML/CSS

**Operating Systems:** Linux, OSX, Windows

**Frameworks/Libraries:** CUDA, SDL, ncurses, React/Svelte