Lydia Melkamu

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Relevant Courses

Object-Oriented Programming, Algorithms, Computer Systems, Compilers, Discrete Structures, Data Structures, Linear Algebra, Organization of Languages, Introduction to Data Science, Web Application Development with JavaScript, Computer and Network Security

Skills

Fluent: Java

Intermediate: OCaml, C, CSS, HTML, Python, JavaScript, Linux, Git, SQL

Awards

2025 - 2026 UMD I4C Reset Scholar

2025 - 2026 Maryland Delegate Scholarship Winner

2022 and 2021 NCWIT Maryland Affiliate Winner

Winner of Technica 2021 Influencing New Horizons

Projects

Ingredient App | DHTML + MongoDB

JANUARY 2025 - MAY 2025

★ Built a recipe generator that suggests dishes based on user-provided ingredients.
★ Implemented a MongoDB database to store and retrieve saved recipes.

Music Education Game | Unity + C#

JANUARY 2024 - MAY 2024

★ Developed a game to teach elementary students pitch and rhythm through interactive play.

Jeopardy Islands | OCaml

JULY 2023 - AUGUST 2023

★ Created a trivia-based game where players traverse a randomized island map.
★ Integrated API calls for dynamic questions and applied graph concepts for map generation.

Education

University of Maryland, College Park | College of Computer, Mathematical, and Natural Sciences

AUGUST 2022 - PRESENT | Expected Graduation - MAY 2026

Bachelor of Science | Computer Science Major | 3.9 GPA

Design Cultures & Creativity Honors Program, Black Student Union, Ethiopian-Eritrean Student Association, Gospel Choir, National Society of Black Engineers

Experience

OSME College Success Scholars | Computer Science Tutor

JANUARY 2025 - PRESENT

★ Tutoring college students across multiple computer science courses
★ Reinforcing core concepts in data structures, algorithms, and software development
★ Mentoring students on effective coding practices, testing strategies, and general career advice

Terrapin Works | Technician

JANUARY 2024 - AUGUST 2024

★ Processed 3D-printing jobs using FormLabs, PrusaSlicer, and NexaX software, ensuring accurate results and timely delivery.
★ Guided customers through prototyping and development.
★ Conducted routine maintenance on 3D printers.

JPMorgan Chase | ABP Intern

JUNE 2024 - JULY 2024

★ Designed and implemented strategic robot models in Robocode (Java) to compete against other fellows, strengthening algorithmic problem-solving skills.
★ Shadowed manager and team engineers to gain insight into financial systems, Agile workflows, and enterprise technology stacks.

Jane Street | JSIP Intern

JUNE 2023 - AUGUST 2023

★ Selected for a highly competitive program applying advanced problem-solving to finance-inspired challenges.
★ Built an interactive multiplayer game in a three-week sprint, demonstrating proficiency in OCaml.
★ Engaged with Jane Street engineers to explore applications of functional programming in trading systems.

Commvault | Intern

JANUARY 2023 - JANUARY 2023

★ Analyzed onboarding survey data from new hires and managers to identify trends in satisfaction and training effectiveness.
★ Developed interactive dashboards in Excel and Power BI, including PivotTables and visualizations, to present findings to HR leadership.