

# Oumer H. Abdulkadir

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## EDUCATION

### Penn-West California

*B.S. in Mechatronics Engineering Technology*

- o **Minor:** Robotics Engineering Technology
- o **Concentrations:** Software Engineering
- o **GPA:** 3.83/4.00, Dean's List

California, Pennsylvania

*Expected Graduation, May 2026*

## EXPERIENCE

### Thought Codes

*Software Development Engineering Intern*

Alexandria, Virginia

*May 2023 – Aug 2023*

- Researched and evaluated various stock-related APIs to meet business needs, gaining practical experience in API exploration and integration. Authored a detailed report on the most suitable API, including a step-by-step integration guide.

### Physics Supplemental Instructor

California, Pennsylvania

*August 2024-Present*

- Lead peer-assisted study sessions to enhance students' understanding of core concepts and problem-solving techniques. Effectively managed sessions with patience and adaptability, accommodating individual learning style

### Student Tutor

California, Pennsylvania

*March 2023-Present*

- Developed a deep understanding of calculus, engineering and programming to tutor students, simplifying complex concepts and offering personalized problem-solving strategies.

## PROJECTS

### Small Scale Elevator

*Team Member*

California, Pennsylvania

*January 2024-May 2024*

- Designed and built the structure of a fully functional 4-story elevator using 3D printing technology.
- Assembled the elevator structure and integrated electronic components through soldering.
- Developed and implemented code for elevator operation, performing comprehensive testing and assessments

### PYGAME based Snake game

*personal project*

California, Pennsylvania

*January 2024-May 2024*

- Learned the fundamentals of Pygame to develop a custom Snake game.
- Coded the entire game, addressing bugs and testing throughout the development process.
- Presented the game to the public for feedback and finalized it as an executable file for easy access.

### Autonomous Maze solver

*Personal project*

California, Pennsylvania

*January 2024-May 2024*

- Researched and implemented the left wall algorithm to solve maze challenges.
- Designed and constructed a robot to specifications, conducting various tests to account for real-world factors like friction and drift.
- Successfully developed a system that solves any maze using the designed algorithm.

### Remote Light Switch

*Personal project*

California, Pennsylvania

*August 2024-Present*

- Designed and implemented an automatic light switch using a servo motor.
- Conducted research on IR (infrared) remote and receiver technology and integrated it into the project, allowing the light switch to be controlled remotely.

## SKILLS

**Programming:** C, C++, Python, HTML/CSS.

**Tools:** Arduino: Mega, Uno, Nano, Siemens, Allen Bradley, Git, Inverter, AutoCAD, Fusion.