# Omar Abuhammoud

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#### **Education**

## **Cornell University, College of Engineering**

Bachelor of Science in Computer Science, Dean's List

Ithaca, NY

Expected May 2026

**Related Coursework:** Algorithms, Data Structures, Artificial Intelligence, Machine Learning, Systems Programming, Object-Oriented Programming, Functional Programming, Linear Algebra, Engineering Statistics

## **Experience**

# Robotics Developer @ Cornell Cup Robotics Team

Website | February 2024-Present

- Developing a modular educational robot for nationwide school distribution that **enhances STEM education** with user-programmable controls and interactive features
- Engineering a lab assistant robot with voice recognition, object detection, and sentiment analysis, **enabling** semi-autonomous task completion
- Spearheading the development of a bipedal walking robot using **neural networks** for movement learning and enabling users to control the robot's actions through **VR integration**

#### Full Stack Intern @ Chapter One

Website | October 2024-November 2024

- Collaborating on an AI-driven platform that generates customizable websites for new businesses, enhancing digital accessibility and streamlining their online presence.
- **Optimized API performance**, implementing redundancy measures to ensure seamless data transfer, reliability, and faster response times.
- Enhanced website personalization by incorporating custom effects and e-commerce capabilities, allowing businesses to showcase products and sell services on their platforms.

## Full Stack Intern @ Hyphenova

Website | August 2024-September 2024

- Developed APIs and implemented endpoints to optimize data transfer between the backend database and front-end application
- Designed and created a front-end application, enabling users to interact with the app through a **responsive and** intuitive interface
- Implemented a matchmaking AI model to enhance user experience by **providing personalized** recommendations and improving match accuracy

## **Projects**

# Cloud-Based Note-Taking App, Capture

Link | August 2024-Present

- Developing a cloud-based note-taking app with a minimalistic design
- Engineering scalable storage solutions by integrating AWS for cloud storage and FastAPI for efficient file handling
- Implementing local storage features to ensure offline access and synchronization of notes

#### Image Recognition & Descriptions, Earthdex

<u>Link</u> July 2024

- Created a real-life Pokédex application integrating TensorFlow for **image identification** and OpenAI for **dynamic descriptions**
- Developed a robust API to handle real-time image uploads and generate detailed information on identified images
- Designed and developed a user-friendly front-end for intuitive interaction with the application

### Puzzle Platformer Game, Chronobreak

Link | June 2024

- Designed and developed a 2D puzzle platformer with a focus on intuitive controls and engaging gameplay
- Optimized game performance for smooth and responsive gameplay across different devices
- Implemented local storage to save game progress, ensuring a uninterrupted user experience

#### Skills

- Back-end Development Tools: Python, Java, C, C++, C#, OCaml, SQL
- Front-end Development Tools: HTML, JavaScript, CSS, React
- Frameworks: TensorFlow, FastAPI, OpenCV
- Developer Tools: Git, GitHub, VSCode, Godot Engine, Unity Engine, Verilog, Fusion360