# **Cameron Tucker**

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Seeking a software engineering internship to apply my skills in AI, robotics, computer vision, and programming.

#### **EDUCATION**

## **Ohio State University**

BS, Computer Science Engineering, AI Specialization

Columbus, OH

Expected Graduation: May 2026

- 3.9 GPA
- Underwater Robotics Team Software Team Lead
  - O Lead a team developing and integrating advanced underwater robotic systems, achieving 2nd place in Overall Autonomy, 2nd Overall in Design Documentation, and 1st place in Systems Assessment at the RoboSub competition.
  - o Oversee software development and integration, ensuring cohesive functionality across all subsystems.
  - o Manage the GitHub codebase, ensuring proper version control, code quality, and collaboration.
  - o Developed YOLOv8-based perception components with ROS2 for object detection and pose estimation.
  - o Created onboarding materials, and conducted training to streamline member integration.
  - o Handled data sharing, received a special award for data sharing efforts, and assisted RoboNation in deploying a CVAT server for the competition.

## **PROJECTS**

- Dataset Augmentation Tool: GUI for image dataset augmentation with real-time preview and directory
  management, supporting mirroring, cropping, zooming, rotating, and overlaying.
- **Tello Drone Indoor Mapping and Navigation**: ROS2 integration of a Tello drone using monocular SLAM and YOLOv8 for indoor mapping and autonomous navigation.
- Stereo Vision Disparity Adjustment Tool: GUI for adjusting and visualizing stereo vision disparity maps to enhance depth perception.
- Data Collection Web Application: React-based web app for efficient video frame labeling and machine learning dataset annotation.

#### **SKILLS & INTERESTS**

- Programming Languages: Python; C++; Java; JavaScript; HTML; CSS; SQL
- Skills: Robotics; Computer Vision; ROS2; Git; OpenCV; Qt; React; PyTorch; Networking; Project Management
- Interests: Piano Improvisation; Music Production; Fitness; Cooking; Gardening

#### WORK EXPERIENCE

AUX Technology

March 2022 - Present

Columbus, OH

Founder & IT Specialist

- Founded and manage an IT company focused on providing small business solutions, including network support and hardware maintenance.
- Developed a custom database that saved a client hundreds of hours per month by automating key processes.
- Conduct regular IT assessments, resolve technical issues, and optimize IT infrastructure.
- Created responsive websites for clients, improving their online presence and user engagement.

**Hero IT**IT Consultant

March 2019 – February 2022

Columbus, OH

- Supported network systems and managed hardware to ensure optimal performance and reliability.
- Implemented network security measures and provided end-user training to enhance IT infrastructure.