Paolo Lanaro

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Availability: July - December 2024

Education

Northeastern University | *Boston, MA* September 2022 - Present
Khoury College of Computer Science
Candidate for a Bachelor of Science in Computer Science, concentration in Artificial Intelligence.
GPA: 3.88 / 4.00 - Dean's List Honors.
Activities: Robotics Club (Robot Dog), NUHacks.
Relevant Coursework: Object-Oriented Design, Algorithms and Data, Programming in C++, Mathematics of Data Models, Computer Systems.

Computer Knowledge

Languages: Java, TypeScript / JavaScript, C++, Python, C, Kotlin.
Frameworks & Libraries: React, Tailwind, Next.js, OpenCV, Supabase, Java Swing, JUnit.
Software & Tools: Git, VSCode, CLion, Linux (Debian), ROS, CSS, HTML, Fusion360.

Experience

Robotics Club | *Boston, MA* January 2024 - Present
Software and Mechanical Team Member for the "Robot Dog" Division
- Current cross functional team member for both the software and mechanical teams.
- Working on Lidar, camera, and ROS software for the software team.
- Machining parts for the drivetrain of the robot dog including doing CAM and CAD work.

Northeastern University | *Boston, MA* September 2023 - December 2023
Teaching Assistant for Fundamentals of Computer Science 1
- Held 7-10 office hours a week, including tutoring for a ~300 person class, and collaborated with course staff.
- Graded assignments for 15 students per week, verifying correctness of code, and enforcing a style guide.
- Acknowledged by students for effective assistance and patient guidance during office hours.

Projects

Climb Now | *Next.js, TypeScript, Supabase* February 2024 - Present
- Developing a platform for climbers to review gyms, manage profiles, and foster community engagement.
- Utilized the Supabase database for seamless user authentication and storing climbing gyms data.
- Optimized performance and responsiveness across devices by utilizing Next.js and TypeScript.

Photo Booth Style Program | *C++, JSON* November 2023 - December 2023
- Built a real-time filter application for video feeds, offering a dynamic photo booth experience.
- Implemented save and retrieval functionality for filters using the JSON for Modern C++ library.
- Integrated functionality to manage data interchange between OpenCV and STB image libraries.

Reversi Game | *Java* October 2023 - December 2023
- Developed a Reversi (Othello) game with both Hexagon and Square board variations.
- Engineered a computer-based player employing optimal algorithms for strategic decision-making.
- Constructed a GUI application supporting multiple views using the Java Swing library.

Photomosaic Generator | *C++* October 2023 - January 2024
- Optimized image handling by effectively leveraging the STBI library for serialization.
- Implemented an AVLMap to efficiently store and retrieve image information for up to 9000 images in under 5 minutes. Quantifiably tested running time of the algorithm with the C++ Chrono library.

Interests

Rock climbing, Coffee, Cooking, Board Games, Photography, Movies.

Spoken Languages: English, Italian, Spanish.