MD WASIFUL KARIM

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QUALIFICATION SUMMARY

Computer Science and Physics student with strong programming skills in Python, C++, and experience with ROS2 and TensorFlow. Hands-on experience in robotics, autonomous systems, and automation using platforms like Jetson Orin Nano and Raspberry Pi. Skilled in data analysis, algorithm development, and web application projects. Demonstrated ability to improve efficiency and lead technical initiatives.

SKILLS

Programming Language: Python, C++, C, Java, LaTeX, MATLAB.

Technical: ROS, ROS2, TensorFlow, OpenCV, OpenGL, AutoCAD, Gazebo, SLAM

Analytical: Autonomous Systems, Ardupilot, Jetson Orin Nano, RaspberryPi, Arduino, LIDAR, Git

EDUCATION

Ohio Wesleyan University, Ohio, USA   **Anticipated Graduation: May 2026**

Physics, BS | Computer Science, BA

Honors & Awards : Cambridge A-Level Scholar | Schubert Scholarship | Art Scholarship | Honors Student

RELEVANT WORK EXPERIENCE

Alumni Office | *Ohio Wesleyan University* | SWE Intern **|** Ohio   **August 2024 - Present**

- Orchestrated a multi-source data analysis initiative that improved accuracy by 15%, making the dataset accessible for 6 departments and empowering over 30 users with actionable insights through streamlined SQL queries.
- Revamped the alumni website using BigTree CMS, reducing content update time by 20%, and improving user experience.
- Automated data tracking with Python scripts, cutting manual workload by 30% and increasing operational efficiency.

Harrison Group | Software Development Intern **|** Washington DC   **June 2024 - August 2024**

- Assessed and managed hotel guest data using Python, SQL, and data analytics tools, improving data-driven decision-making by 15%.
- Processed an automated check-in app with HTML, CSS, and Python, reducing check-in times by 20% and enhancing guest satisfaction.
- Synthesized over 500 guest reviews, generating insights that contributed to a 10% improvement in customer service feedback and future operational strategies.

PERSONAL PROJECTS

Self Driving Car | GitHub | ROS2, Jetson Orin Nano, Pixhawk, Lidar, SLAM, Gazebo

- Developed AI-driven vehicle prototype with Jetson Nano, reducing manual intervention by 40%; integrated machine learning for enhanced environmental interaction.
- Implemented Lidar for 2D mapping, obstacle detection, and real-time path planning.
- Collaborated with Dr. Hanliang Guo to optimize control algorithms, utilizing ROS2 for seamless integration.

AI Chess Engine | GitHub | Python, GameEngine

- Created a chess engine where machines play against each other using different algorithms.
- Built most libraries and necessary components from scratch, fostering a deeper understanding of chess mechanics and artificial intelligence principles.
- Collaborated with Dr. Sean McCulloch to optimize various algorithms, focusing on the engine's performance.

CAMPUS COMMUNITY LEADERSHIP

Founding President | Robotics Club **|** *Ohio Wesleyan University*, USA   **December 2022-Present**
Mentor (Drone Operations) **|** Media Center **|** *Ohio Wesleyan University*, USA   **January 2024 - Present**
Phi Delta Theta (ΦΔΘ) | Former *Fraternity Secretary*   **January 2023 - April 2024**