**Yashwanth Raj Tirupati**

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| (937)-469-9700 | tyashwanth99@gmail.com | linkedin.com/in/yashwanthtirupati | github.com/proxiee |

**SUMMARY**

Results-oriented AI/Computer Vision Engineer proficient in C++ and Python (PyTorch) with experience developing and deploying high-performance deep learning models for AR/VR applications. Adept at optimizing on-device performance, improving model accuracy, and collaborating within Agile teams to deliver robust solutions. Experienced in full-stack development and troubleshooting complex technical issues.

**EDUCATION**

**University of Dayton**   
*M.S. in Computer Science*

**Dayton, Ohio, USA**   
 *Aug 2023 - May 2025*

*•* **Concentrations:** Autonomous Systems and Data Science  
*•* **GPA:** 3.41/4.00  
*•* **Related Coursework:** Data Structures & Algorithms, Objects & Design, Virtual Reality, Machine Learning,

Artificial Intelligence, Object-Oriented Programming, Algorithm Design, Advanced Computer Vision.

**Jawaharlal Nehru Technological University** *B.Tech. in Computer Science & Engineering*  
 *•* **CGPA:** 7.3/10.00

**Hyderabad, Telangana, India** *June 2018 - July 2022*

*•* **Related Coursework:** Operating Systems, Database Management Systems, Computer Networks, Discrete Mathematics, Web Technologies, Software Engineering.

**EXPERIENCE**

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| **Cognizant Technology Solutions** *Software Developer* | **Chennai, Tamil Nadu, India**  *March 2023 - Aug 2023* |

*•* Developed and deployed full-stack features for enterprise systems using Spring Boot (Java) and modern front-end frameworks, emphasizing extensible, maintainable code.

*•* Collaborated in an Agile team, translating user requirements into technical specifications and improving API response times by 15%.

**Cognizant Technology Solutions** *Programmer Analyst Intern*

**Chennai, Tamil Nadu, India**  *March 2022-Sept 2022*

*•* Improved code quality and reliability by identifying and fixing bugs in enterprise applications, resulting in a 10% reduction in reported issues.

*•* Enhanced test automation and authored technical documentation to improve software quality.

**PROJECTS**

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| **Real-time Hand Tracking & Gesture Recognition for AR** | *Jan 2024-May 2025* |

*•* Developed a novel deep learning model (C++, PyTorch) for high-fidelity hand tracking in a simulated AR environment, achieving 98.5% accuracy on a custom dataset.

*•* Engineered a lightweight architecture, reducing latency by 30% and increasing model robustness by 25% to achieve

90 FPS on-device performance.

**On-Device 3D Scene Reconstruction for VR**

*Jun 2024 - Present*

*•* Architected a 3D reconstruction pipeline in Python, creating a custom SLAM algorithm that decreased tracking drift by 40% compared to baseline methods.

*•* Optimized the system for mobile hardware, achieving a 2.5x speedup in mesh generation enabling interactive

on-device performance.

**Enterprise-Grade Bug Tracking System**

*Sep 2023-Dec 2023*

*•* Developed a web application using Spring Boot and React to track and manage software bugs, improving team

efficiency by 15%.

*•* Integrated the system with GitHub and Jenkins for seamless workflow management, enhancing developer

productivity.

**ACTIVITIES AND LEADERSHIP**

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| **University of Dayton**  *•* Teaching Assitant, CPS 501 (Advanced Programming and Data Structures)  *•* Secretary, Indian Student Association (100+ members) | **Dayton, Ohio, USA**  *Jan 2024-Apr 2024*  *Aug 2023-Apr 2024* |

**SKILLS**

**Languages:** Python, Java, C++, C, JavaScript, Kotlin   
**Frontend:** HTML, CSS, ReactJS, AJAX   
**Backend Frameworks:** SpringBoot, NodeJS   
**Database:** MySQL, MongoDB, Postgres   
**Automation:** Appium, Selenium, Cucumber BDD, Jenkins, JUnit **AI & ML:** PyTorch, TensorFlow, Jupyter, OpenCV, LLMs(GPT)