**Yashwanth Raj Tirupati**

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

**SUMMARY**

Highly proficient AI/CV Engineer with an M.S. in Computer Science and expertise in developing and deploying high-performance deep learning models for AR/VR applications. Proven ability to optimize on-device performance, improve model accuracy, and reduce system latency using C++ and Python (PyTorch). Experience in full-stack development and Agile methodologies.

**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 5 full-stack features for enterprise systems using Spring Boot (Java) and modern front-end frameworks, emphasizing code maintainability and extensibility.

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

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

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

*•* Identified and resolved 100 bugs in enterprise applications, resulting in a 10% reduction in reported issues.*•* Improved code quality and reliability by authoring technical documentation and enhancing test automation.

**PROJECTS**

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

*•* Developed a deep learning model (C++, PyTorch) for high-fidelity hand tracking in simulated AR, achieving 98.5% accuracy on a 50-gesture dataset.

*•* Engineered a lightweight architecture, reducing latency by 30% and improving robustness by 25% (90 FPS on-device).

**Optimized 3D Object Recognition for AR Applications**  *Jun 2024 - Present* *•* Developed a high-accuracy 3D object recognition system using a novel deep learning architecture, achieving 95% accuracy on a diverse dataset of 1000 objects.

*•* Optimized the model for real-time performance on mobile devices, achieving a 3x speedup compared to the baseline model.

**Efficient AR Occlusion System** *Sep 2023-Dec 2023* *•* Developed a PyTorch-based semantic segmentation model for realistic AR occlusion, achieving 92% mIoU. *•* Implemented a Kubernetes-based distributed training process, accelerating model training by 5x.

**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)