

# Yashwanth Raj Tirupati

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Hiring Manager  
Company Name  
Location

## **Subject: Application for Software Engineer**

Dear Hiring Manager,

I am writing to express my keen interest in the Software Engineer position. My background in AI/Computer Vision and full-stack development, coupled with my experience in deploying high-performance deep learning models and optimizing on-device performance, aligns strongly with the requirements outlined in the job description. My passion for building elegant software systems and troubleshooting complex technical issues, as well as my familiarity with GitHub and Jenkins, make me a suitable candidate.

My experience at Cognizant Technology Solutions, where I served as both a Software Developer and Programmer Analyst Intern, provided me with valuable experience in developing and deploying full-stack features for enterprise systems using Java and modern front-end frameworks. I consistently focused on creating extensible and maintainable code, collaborating effectively within Agile teams. During my time as a Software Developer, I improved API response times by 15%. As an intern, I improved code quality and reliability by identifying and fixing bugs, resulting in a 10% reduction in reported issues. Furthermore, I enhanced test automation and created technical documentation to improve overall software quality.

My personal projects further demonstrate my capabilities. In my "Real-time Hand Tracking Gesture Recognition for AR" project, I developed a deep learning model (C++, PyTorch) achieving 98.5% accuracy. I also engineered a lightweight architecture, reducing latency by 30% and increasing model robustness by 25% to achieve 90 FPS on-device performance. My "On-Device 3D Scene Reconstruction for VR" project involved architecting a 3D reconstruction pipeline in Python, creating a custom SLAM algorithm that decreased tracking drift by 40% compared to baseline methods. I then optimized the system for mobile hardware, achieving a 2.5x speedup in mesh generation. Finally, my "Enterprise-Grade Bug Tracking System" (Spring Boot and React) improved team efficiency by 15% and integrated seamlessly with GitHub and Jenkins.

These experiences showcase my proficiency in various technologies and my commitment to delivering high-quality, efficient solutions. I am confident in my ability to contribute significantly to your team. My resume provides further detail on my qualifications, and I welcome the opportunity to discuss my application further.

Sincerely,  
Yashwanth Raj Tirupati