

# Yashwanth Raj Tirupati

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## SUMMARY

Results-oriented AI/CV Engineer with an M.S. in Computer Science and expertise in migrating applications. Proven ability to optimize on-device performance and improve model accuracy. Proficient in Python, C++, PyTorch and experienced in developing and deploying deep learning models for AR/VR applications. Seeking a Lead OCP Engineer role within the Financial Services industry.

## 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*

**Hyderabad, Telangana, India**

*June 2018 - July 2022*

- **CGPA:** 7.3/10.00
- **Related Coursework:** Operating Systems, Database Management Systems, Computer Networks, Discrete Mathematics, Web Technologies, Software Engineering.

## EXPERIENCE

### 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, ensuring extensible, maintainable, high-quality code.
- Collaborated in an Agile team, translating user requirements into technical specifications and delivering robust solutions; improved API response times by 15%.

### Cognizant Technology Solutions

*Programmer Analyst Intern*

**Chennai, Tamil Nadu, India**

*March 2022-Sep 2022*

- Improved enterprise application stability by identifying and fixing bugs, resulting in a 10% reduction in reported issues.
- Enhanced code quality and reliability through technical documentation and improved test automation.

## PROJECTS

### Migration of Legacy Financial Application to OCP

*Jan 2024-May 2025*

- Led the successful migration of a legacy financial application (100k+ lines of code) from PCF to OCP, resulting in a 20% reduction in infrastructure costs and a 15% improvement in application performance.
  - Implemented robust monitoring and alerting systems, ensuring 99.9% application uptime post-migration.
- Successfully managed a team of 5 engineers throughout the project lifecycle.

### On-Device 3D Scene Reconstruction for VR — Personal Project

*Jun 2024 - Present*

- Developed a custom SLAM algorithm that decreased tracking drift by 40% compared to baseline methods for large-scale environments.
- Optimized the system for resource-constrained mobile hardware, achieving a 2.5x speedup in mesh generation enabling interactive on-device performance.

### High-Performance Computing Cluster for Financial Modeling

*Sep 2023-Dec 2023*

- Designed and implemented a high-performance computing cluster using Kubernetes, enabling a 5x speedup in complex financial model simulations.
- Successfully deployed and managed the cluster, achieving 99.99% uptime, reducing model processing time by 80%.

## ACTIVITIES AND LEADERSHIP

### University of Dayton

- Teaching Assistant, 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)