

# GUHA PRANAV YELCHURU

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## SUMMARY

Computer Science graduate (9.47 CGPA) with 500+ hours of internship experience across AI research, software development, computer vision, competitive programming and team management. Delivered 15%+ performance improvements in 4/5 internships through streamlined solutions and system design. 2x hackathon finalist. 3x Leadership positions.

## EXPERIENCE

### AI Software Intern

#### Deepcept AI | Bengaluru (Hybrid) | Jun 2025 - Present

- Boosted YOLOv8 model accuracy by 22% for object detection tasks by implementing ROI filtering.
- Developed real-time pose estimation system with MediaPipe, achieving 92% joint detection accuracy at 30 FPS
- Partnered with PMs to refine ROI filtering requirements, reducing false positives by 35%.

### Research Intern

#### Samsung PRISM | Remote | Nov 2024 - Jun 2025

- Trained conformer-based DL model achieving PESQ 3.6+ (industry benchmark: 3.0) on noisy audio datasets
- Architected multi-task learning module to push ERLE to 29dB (industry avg: 22dB).
- Debugged 40% inference bottleneck in PyTorch model

### Developer Intern,

#### Zuntra Digital | Chennai (Hybrid) | Aug 2024 - Dec 2024

- Revamped 5+ product pages using WordPress, decreasing average page load time from 4.2s to 2.5s (40% improvement)
- Instituted lazy loading standards for images, reducing mobile bounce rates by 28%.
- Co-designed UI components, improving user engagement metrics by 15%

### Intern

#### HCL Technologies | Remote | Jun 2024 - Jul 2024 (Part-time)

- Created Dynatrace dashboards for SLO monitoring, reducing manual tracking time by 6 hours/week
- Liaised between SRE and DevOps teams to maintain 90% uptime for critical services.

### Java Intern

#### CoreNuts Technologies | Bengaluru | Jun 2024 - Jul 2024 (Part-time)

- Built Student Management Portal with 1.5K+ lines of modular Java code
- Integrated caching mechanism that reduced database calls by 45%
- Improved system responsiveness by 30% using optimized class structures

## EDUCATION

### Bachelor of Technology, Computer Science Engineering

#### Vellore Institute of Technology | Sep 2022 - Present | CGPA: 9.47

- **Leadership:** Dept. Cultural Head (Telugu Literary Association), Student Council, Program Representative
- **Awards:** 3x Academic Meritorious Award

### Senior Secondary School

#### DPS Whitefield, Bangalore | Apr 2020 - Jun 2022 | 96%

## PROJECTS

### ERP Software | JavaScript, PHP, MySQL, Flask | [\(Link\)](#)

- Served CRUD operations with REST APIs for event registration (100+ concurrent users)
- Reduced admin workload by 20 hours/month through automated report generation and dashboards
- Secured system with role-based access control

### Lunar Rover Lander | PyTorch, Gymnasium, DQN, Python | [\(Link\)](#)

- Trained RL agent reaching 83% landing success rate (vs. baseline 45%) through reward shaping
- Optimized hyperparameters, reducing training time by 35%
- Created Gymnasium environment renderings and reward-curve plots to validate the agent's results.

### AI Healthcare chatbot | Python, LLAMA-2, Translate, LLM | [\(Link\)](#)

- Fine-tuned HuggingFace model on 10K+ medical Q&A pairs, achieving 87% query resolution accuracy
- Deployed as chatbot with perplexity score 47
- Integrated Google Translate and Speech2Text APIs, expanding chatbot accessibility by 400%

### Basketball Analytics | YOLO, OpenCV, DeepSORT | [\(Link\)](#)

- Achieved 89% player tracking accuracy on game footage by training Ultralytics YOLOv8 weights
- Generated movement heatmaps and passing metrics used by 2 teams for performance analysis

## SKILLS

- **Programming:** Python, C, C++, Java, JavaScript, HTML, CSS, SQL
- **Software Development:** ReactJS, ThreeJS, NodeJS, UI / UX, Flask, Database(MySQL, MongoDB), SDLC, Operating Systems, Networks
- **AI / ML:** Deep Learning(Keras, Pytorch, Tensorflow), Computer Vision(YOLO, OpenCV), Machine Learning(sklearn, matplotlib, seaborn)
- **Tools:** VS Code, Figma, WordPress, AWS, MS Office, Power BI, Kaggle, Roboflow, Cloud computing
- **Soft Skills:** Cross-functional collaboration, Leadership, Technical Communication, Crisis management, Agile mindset

## ADDITIONAL

- **Certifications:** IBM AI Engineering, Postman API Fundamentals, IBM Docker Essentials, Oracle AI Associate
- **Languages:** English, Tamil, Telugu, Hindi, Intermediate Indonesian, Beginner German.
- **Hackathons:** Google Arcade program, Finalist in Hack Horizon and Data Impossible
- **Co-authored and Published** two Fictional books ([Bound of Bricks](#)) and poetry.