

# Yarragonda Dhanush Kumar Reddy

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📍 Kadiri, 515591, India

## WORK EXPERIENCE

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### Software Developer – Siri Solutions Inc

- Developed and deployed scalable backend modules using Python on AWS EC2.
- Built REST APIs and implemented automated tests using Postman and Python.
- Automated deployment with Git, Docker, and shell scripts, cutting manual effort by 60%.
- Worked cross-functionally to optimize infrastructure and CI/CD pipelines.

### Python Developer Intern – Sacro

- Built automated data processing pipelines in Python; improved efficiency by 40%.
- Integrated logging, error handling, and code optimization across scripts.
- Created unit tests with pytest and implemented GitHub Actions for CI.
- Helped streamline deployments with Git and team-based Git workflows.

## PROJECTS

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### Emotion Recognition from Facial Expressions

- Trained multiple CNN models to detect human emotions from facial images.
- Compared ResNet, UNet, GoogleNet variations, and a custom “NewNet” model.
- Applied data augmentation, weighted loss, and advanced optimizers like Adam and SGD.
- Achieved reliable classification performance for real-time systems.

### Deep Reinforcement Learning Agents

- Implemented DQN, DDQN, and A2C algorithms using PyTorch and NumPy.
- Designed environments like Tic-Tac-Toe and Rock-Paper-Scissors for agent testing.
- Optimized models using experience replay and policy gradient strategies.
- Delivered 92%+ win rate in simulation environments with multi-agent dynamics.

## EDUCATION

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### University at Buffalo, NY

*M.S. in Computer Science*

**VIT**, Vellore, India

*B.Tech in Electronics and Communication Engineering*

## TECHNICAL SKILLS

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### Languages & Tools

Python, SQL, Shell Scripting, YAML, HTML, Bash, Git, GitHub, Postman, VS Code, Linux

### Cloud & DevOps

AWS, Azure, GCP, Docker, Kubernetes (Basic), Jenkins (Basic), Terraform, CI/CD, Ansible (Basic)

### Frameworks & Platforms

Flask, Django (Basic), PyTorch, Nginx, GitHub Actions, Eclipse, Android Studio

## RELEVANT COURSEWORK

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Data Structures, Algorithms, Machine Learning, Deep Learning, Reinforcement Learning, Data Intensive Computing

## LEADERSHIP & ACTIVITIES

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### Student Leader – Campus Dining & Shops

- Coordinated student team schedules and ensured smooth daily operations.
- Acted as liaison between students and administration for events and communications.
- Organized staff meetings, student outreach activities, and process improvements.
- Supported campus-wide planning efforts, promoting teamwork and efficiency.
- Gained hands-on experience managing teams and improving service delivery.