Yarragonda Dhanush Kumar Reddy

+91 9441572688 | Kadiri, Andhra Pradesh
dhanushkumarreddy0514@gmail.com | linkedin.com/in/dkry | Dhanush-Portfolio

WORK EXPERIENCE

Software Developer – Seer Solutions Incorporated

- Developed and deployed scalable backend modules using Python on Amazon Web Services Elastic Compute Cloud (AWS EC2).
- Built Representational State Transfer (REST) Application Programming Interfaces (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 Continuous Integration/Continuous Deployment (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 using pytest and also implemented GitHub Actions for Continuous Integration.
- Helped streamline deployments with Git and team-based Git workflows.

PROJECTS

Emotion Recognition from Facial Expressions –

- Trained the multiple Convolutional Neural Network (CNN) models to detect human emotions from facial images.
- Compared models like Residual Network (ResNet), U-Net, GoogleNet variations, and a custom "NewNet" model.
- Applied data augmentation, weighted loss, and advanced optimizers like Adaptive Moment Estimation (Adam) and Stochastic Gradient Descent (SGD).
- Achieved reliable classification performance for real-time systems.

Deep Reinforcement Learning Agents –

- Implemented algorithms Deep Q-Network (DQN), Double Deep Q-Network (DDQN), and Advantage Actor-Critic (A2C) 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 and delivered 92%+ win rate in simulation environments with multi-agent dynamics.

EDUCATION

University at Buffalo – Buffalo, New York
Master of Science in Computer Science

VIT University – Vellore, India
Bachelor of Technology in Electronics and Communication Engineering

TECHNICAL SKILLS

Languages and Tools –
Python, Structured Query Language (SQL), Shell Scripting, YAML, HyperText Markup Language (HTML), Bash, Git, GitHub, Postman, Visual Studio Code, Linux

Cloud and DevOps –
Amazon Web Services (AWS), Microsoft Azure, Google Cloud Platform (GCP), Docker, Kubernetes (Basic), Jenkins (Basic), Continuous Integration/Continuous Deployment (CI/CD), Terraform, Ansible (Basic)

Frameworks and Platforms –
Flask, Django (Basic), PyTorch, Nginx, GitHub Actions, Eclipse, Android Studio

RELEVANT COURSEWORK

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

LEADERSHIP AND ACTIVITIES

Student Leader – Campus Dining and 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.