AKHIL REDDY BURRI

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Education

University of Hyderabad(UoH)

CGPA - 9.25/10

Integrated Masters of Technology

Aug, 2019 - Aug, 2024

- Contributed for projects under Cloud and Smarts Lab.
- Electives: Color Image Processing, Soft Computing, Data Engineering, Internet of Things, Machine Learning, Deep Learning, Distributed Data Processing on Cloud, Meta Heuristics.

Naravana Junior College

SCORE - 983/1000

Senior Secondary (XII)

Jun, 2017 - Jul, 2019

• Specialized in Physics, Chemistry, and Mathematics.

Work Experience _____

Marvell Technology Inc.

Internship - Hyderabad

Jul. 2023 - Jun. 2024

Software/Firmware Engineering Intern

- Acquired expertise in deploying microservice applications with service mesh enabled Kubernetes cluster.
- Designed a DPU-based architecture for Istio Ambient Mesh and Cilium workloads, slashing 40-80% of compute resources.

Technologies: Kubernetes, Istio, Istio Ambient Mesh, Cilium, Gateway API

Institute for Development and Research in Banking

Internship - Hyderabad

Machine Learning Intern

May, 2023 - Jun, 2023

- Engineered FCL methods fortified by differential privacy measures, safeguarding the confidentiality of data.
- Specialized in training large language models specifically tailored for JIDSF task, optimizing performance and accuracy. Utilized PEFT (Parameter Efficient Fine Tuning) to significantly accelerate the training speed

Technologies: FCL(Federated Continuous Learning), Tensorflow, PyTorch

Solutions Adda

Internship - Hyderabad

Machine Learning Intern

Dec, 2022 - Mar, 2023

• Utilized eBPF technology to implement machine learning models within the kernel space, leading to a 20% reduction in time for performing Flow-Based Intrusion Detection.

Technologies: eBPF, XDP, c++, python3.

University of Hyderabad

Internship - Hyderabad

Application Developer

Jun, 2022 - Jul, 2022

- Streamlined actor monitoring in the Akka framework by designing and developing a visualization layer with a hierarchical structure, eliminating the need for manual status checks.
- Configured remote access on 4 Raspberry Pis to enable distributed training of a neural network model. **Technologies:** Scala, Java, Deep Learning, JavaScript, ExpressJS, HTML, CSS, Docker, Shell Scripting.

Continuum Innovations

Internship - Remote

Associate Cloud Engineer

Feb, 2022 - Apr, 2022

- Implemented a robust architecture for a client on AWS using Terraform within a time frame of two weeks.
- Revived a dormant project and accelerated progress through effective persuasion.

Technologies: Terraform, Cloud Computing, DevOps, Linux.

Projects

File Store Application

Individual

UoH

Aug, 2023 - Sep, 2023

- Crafted a cutting-edge file storage application utilizing Google Cloud Platform's cloud storage, effectively addressing file management complexities by ensuring secure storage, retrieval, and seamless file manipulation.
- Orchestrated the setup of a MySQL database to efficiently store and manage comprehensive metadata associated with files and user details, ensuring authentication and abstraction.

Technologies: Python3, Flask, GCP, MySQL.

Analytics as a Service

Group of 5

UoH Aug, 2022 - Dec, 2022

• Developed an automated **Fraud Analytics** service for transactional data utilizing Machine Learning in Spark, serving over **100+** requests per second using a **4-core spark cluster.**

Deducted 99% of the time wasted in service configuration through automation.
Technologies: Kubernetes, Kafka, Hadoop, MySQL, Spark, JupyterHub, Apache Super Set.

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Face Spoof Detection

Individual

UoH Sep, 2022 - Sep, 2022

• Trained a Convolutional Neural Network model achieving an accuracy of **98.26**% on unseen data. Safeguarding against face presentation and spoofing attacks.

Technologies: CNN, Python, OpenCV, Keras

Learning Management System

Individual

UoH - Internet Technologies Course

Nov, 2021 - Dec, 2021

- Engineered a comprehensive LMS web application that revolutionized communication and collaboration between teachers and students.
- Crafted features like seamless course material sharing, streamlined assignment submission, automated grading, curated an interactive noticeboard, and facilitated real-time communication.

Technologies: MongoDB, NodeJS, ExpressJS, EmbeddedJS, HTML, CSS, Socket.io.

Automated Multi-Node-Kubernetes-Cluster

Individual

ARTH

Mar, 2021 - Mar, 2021

• Fabricated ansible playbooks and roles in automating the configuration of Multi-Node Kubernetes Cluster along with provisioning of Nodes on AWS, cutting down the time wasted by 90% and also eliminated Human errors.

Technologies: Kubernetes, Ansible, AWS.

Computer Skills

Big Data: Hadoop, Hive, Spark, Pig

DataBases: MySQL, MongoDB, Postgres

Mobile App Development: Flutter

Frontend Development: ReactJS, EJS, Astro, Svelte, CGI, HTML, CSS **Backend Development:** gRPC, Flask, Express, Json Web Tokens, NodeJS

Programming Languages: Python, C, C++, Java, JavaScript, GO, Scala, Dart, Matlab, Shell Scripting, Scilab, R Ansible, Docker, Podman, Kubernetes, OpenShift, Istio, Cilium, Istio Ambient Mesh,

DevOps: Jenkins, Git, GitHub

Cloud: AWS, GCP, Azure, Terraform, SONiC

ML and Al: NLP, Computer Vision, sci-kit-learn, Deep Learning and Neural Networks(Keras and

TensorFlow)

Operating System and Networks:

Linux, Kernel Modules, eBPF, XDP, TCP/IP, gRPC, Networking Protocols, Basics of Wireless,

4G, and 5G Networks

Documenting: LITEX

Certifications

Certified Specialist in Containers and Kubernetes

SCORE - 295/300

RedHat Mar, 2022 - Mar, 2025

Trainings and Workshops_____

ARTH Program

LinuxWorld Informatics Pvt. Ltd. Aug, 2019 - Sep, 2021

Certified Specialist in Containers and Kubernetes

RedHat Apr, 2021 - Jun, 2021

<u>Winter of Doing Stage - 1</u> and <u>Winter of Doing Stage - 2</u>

CRIO Jan, 2021 - Jan, 2021

Deep Learning and Data Science

Al Planet(DPhi) May, 2020 - Jul, 2020

Expertise in DockerIIEC RISE - LinuxWorld Informatics Pvt. Ltd.

Mar, 2020 - May, 2020

Achievements_____

Secured a rank of 1646 among 75 Thousand+ students, in GATE-2023 with a score of 573 out of 1000	Feb, 2023
Runnerup among 24 teams, in C Treasure Hunt conducted by UoH.	Sep, 2022
4th among 91 participants, in Image Classification Challenge organized by DPhi.	Sep, 2020
Ranked 13121 among 1 Million+ students, in JEEMAINS-2019 and secured admission at UoH.	Jan, 2019