Yasaswi Sai Niharika Avula

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EDUCATION

Master of Science, Computer Science **Aug 2021 – May 2023**
Central Michigan University, Mount Pleasant, MI, USA

Bachelor of Technology, Information Technology **Aug 2017 – Jun 2021**
R.V.R & JC College of Engineering, Guntur, AP, India

SKILLS

Programming Languages
Python, Java, C/C++, C#, Perl, SQL
JavaScript

Cloud Platforms
AWS, GCP

Databases
MySQL, MangoDB, Oracle DB
AWS DynamoDB, PostgreSQL
EPIC Clarity

SD Tools
Git, GitHub, Gitlab, VS Code, Anaconda, PyCharm, Postman, cURL, Docker

Web Technologies
HTML5, CSS3, JavaScript, PHP
React.js, Node.js, Flask, Django, Firebase, REST APIs

Data Modules
Pandas, Numpy, Tensorflow, NLTK, Matplotlib,
Ski-Kit Learn, MATLAB, Pyspark

PROFESSIONAL EXPERIENCE

Graduate Research Assistant – *Central Michigan University, Mount Pleasant, MI* **Aug 2022 – May 2023**
- Organized, researched, and summarized over 150 research papers on **Disease Detection with DL/ML**.
- Supported software development & built automated data ingestion pipelines, resulting in 75% increase in data collection rate.
- Implemented complete **Software Development Lifesycle**(**SDLC**) using **Agile Development** Methodologies.
- Developed a **SaaS application** for a Healthcare provider in MI in close collaboration with Dr.Gandy.
- Built a Single-page Application(**SPA**) using **React.js**, **Git** & **Firebase.**
- Created Serverless Microservices using **Cloud Functions** and **Firestore** Database to Ingest and Transform different types of Data from multiple source systems and provide data to Other Consumer Systems.
- Simultaneously Worked as Teaching Assistant for CPS181- Intro to **Data Structures**, with approx. 30 students per section.

Software Developer Intern – *Beaumont Health*, *Troy, MI* **May 2022 – July 2022**
Contract Through: HTC Global Services
- Hands-on Experience in Developing **Automated Data Integration Pipelines** with **AWS Lambda** to integrate multiple HealthCare platforms, CRMs and process real-time **BigData** streams into **ETL pipelines** collecting **1M** records per day.
- Worked with support team for Live bug fixes establishing seamless integration with other healthcare technology solutions - **Epic**, **MyChart** and **SaaS mobile applications**. Created **EPIC EMR** clinical workflows for healthcare providers.
- Collaborated with cross-functional teams to facilitate the **Cloud Migration** of legacy **Oracle Databases** to **Amazon RDS**.

Web Development Intern – *Learnweel, Mumbai, India(Remote)* **Apr 2020 – Jun 2020**
- Designed & Developed **Check-out page** Front-end using **HTML5, CSS, JavaScript** and **Bootstrapping**.
- Back-end with **PHP** and **Microsoft SQL**. Experience with **Git** & **Gitlab** for Version Control.
- Created User Interface(**UI**) design for Checkout page and blog posts using **adobeXD**.

PROJECTS

REST API for Weather Updates on AWS Cloud
- Developed an **ETL pipeline** from Open-Source weather data using **AWS Lambda(Python), S3** and **DynamoDB.**
- Created reusable modules to perform **Data Transformation**, using Python and Deployed them using **AWS Layers.**
- Built and maintained a serverless **REST API** using **AWS API Gateway & AWS Lambda** for fetching and returning the Latest Weather Data updates from the database. Tested API(Validating each API endpoint) using **POSTMAN** and **cURL.**

Build-Your-Own Van Gogh
- Artistic Style Transfer of **Van Gogh** art style to any image using **Deep VGG19 layers Convolutional Neural Networks**
- Built a Neural Style Transfer model with **Transfer Learning** using pre-trained model, **VGG19** from **Keras** by **Optimization** of **style loss**, **content loss**, and total **variation loss.**
- Minimized the loss function using **Gradient-descent** and the accuracy of the model is approximately **92.1%**.

Smart House Plant Tracker
- Engineered an **IoT** application using **Python**, **Bolt/ESP8266 board**, and sensors to monitor house plants' temperature and soil water content.
- Devised an intuitive alert mechanism that promptly notifies users via **mailgun API** and **Twilio** for temperature **>32℉** or soil water content **<1.09** inches. Implemented **Docker** for efficient deployment and containerization.

ACHIVEMENTS & CERTIFICATES

- Won *2nd, 3rd place* for System Design & Analysis, Data Analysis and Visualization @**MCCC 2023**
- *Overall Hackathon Winner* @**Hackathon Reimagine** 2022, ***1293rd*** Rank in **Google Code Jam** I/O for Women 2020
- **Grace Hopper Conference** 2022**, AWS Innovate Online Conference AI/ML** 2020 @ Attendee
- Certified **AWS Cloud Practitioner** 2022