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	**Cloud Platforms**	**Databases**
Python, Java, C/C++, C#, Pearl, JavaScript, SQL, NoSQL	AWS, GCP	MySQL, MangoDB, Oracle DB AWS DynamoDB, PostgreSQL
SD Tools	**Web Technologies**	**Data Modules**
Git, GitHub, Gitlab, VS Code, Anaconda, PyCharm, Postman, cURL, Docker	HTML5, CSS3, JavaScript, PHP React.js, Node.js, Flask, Django, Firebase, REST APIs	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 product development and built automated data ingestion pipelines, resulting in 60% 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 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**.
- 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/Raspberry Pi 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