Uday Surya Kovvuri

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EDUCATION

Master of Engineering, Computer Science **April 2025**

University of Cincinnati, Cincinnati, Ohio **(**GPA: - 3.95/ 4.0)

- Relevant Coursework: - Advanced Algorithms, Advanced Database Management, Cloud Computing

Bachelor of Technology, Computer Science **May 2023**

*Vellore Institute of Technology, Chennai, India (*GPA: - 3.7/ 4.0)

- Relevant Coursework: - Data Structures and Algorithms, Data Analytics, Internet & Web Programming

PROFESSIONAL EXPERIENCE

Software Developer Intern, at IIIT Kancheepuram, India **May 2022 – July 2022**

- Spearheaded the development of an **image processing** application using **Python, Flask, and Deep learning**, focusing on the automation of medicinal leaf identification, which achieved a high accuracy rate of 95% in recognizing 30 distinct leaf types.
- The project entailed refining data processing algorithms and **optimizing model architectures**, directly paralleling key software development tasks such as **debugging, code optimization**, and **system scalability**.

SKILLS

Programming Languages: Advanced Java, Python, HTML, CSS, JavaScript, PHP, React, Spring Boot, MVC
Technologies: GIT, Linux, AWS, Azure, Servlets, Maven, JSP, Docker, REST APIs, OOPS, Agile, SDLC Waterfall, UNIX
Databases & Analytics: My SQL, Spark SQL, PostgreSQL, Tableau, MongoDB, DynamoDB, NoSQL, JDBC, R, Streamlit

ACADEMIC PROJECTS

Evolution of Spark SQL and Exploration into its Performance Evolution

- Enhanced **Spark SQL query perfor**mance using **Scala on GCP**, achieving faster execution compared to **HiveQ**L, which optimized data analytics processes for quicker insights.
- Analyzed Spark SQL's query execution and **Catalyst optimizer effectiveness**, demonstrating advanced skills in Apache Spark and GCP for **improved data scalability**.

Data-Analysis-On-World-Wide-Covid19-Vaccinations

- Utilized **ARIMA and statistical modeling in R and Python**, alongside visualization in **Tableau**, to accurately forecast global COVID-19 vaccination timelines, highlighting **potential reductions in case and mortality rates.**
- Conducted **exploratory data analysis and applied Pearson correlation** to guide health policy development, underscoring the significant impact of vaccinations on mitigating COVID-19 effects and addressing healthcare inequalities.

EventXperience: Integrated Ticket Booking and Management Platform

- Developed a **user-centric online ticket booking platform** that allows seamless interactions for booking, updating, and canceling event tickets, while providing comprehensive management tools for administrators.
- Crafted an intuitive and visually appealing ticket booking interface using **HTML and CSS**, enhanced front-end functionality with **the JavaScript and it's libraries (JQuery)**, and ensured effective storage system and backend **communication using MySQL and PHP.**

Streamlit-Based Web Application with AWS Deployment and Docker Containerization

- Engineered an authenticated login system with **Python**, **Java** and **Streamlit**, ensuring a seamless user experience while securely managing uploads.
- Implemented robust database connectivity through **Amazon RDS** for efficient data storage and retrieval. Expertly orchestrated AWS deployment using **ECR, ECS, and Fargate**, optimizing resources for scalability.
- **Docker** was **utilized** for efficient containerization, establishing a streamlined pipeline from **GIT** to **AWS ECR** registry. Employed an **Application Load Balancer** for effective load distribution in the cloud infrastructure.

CERTIFICATIONS

- AWS Certified Cloud Practitioner (CLF-C02)
- Java with Spring Framework – Udemy
- Microsoft Certified Azure Fundamentals

ACHIEVEMENTS

- Secured silver badge in Artificial Intelligence foundation course by NASSCOM
- 4 Scopus Indexed International Publications (Google Scholar).
- Received Graduate Incentive Award from UC