Rajvardhan Patil

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Vellore Institute of Technology, Vellore (Tamil Nadu)

B.Tech Computer Science and Engineering with specialization in Information Security

Experience Intern

WalStar Technologies

- Led the development of a mobile app to automate milk dairy processes in rural areas and worked on HRMS application.
- Conducted research and survey for the need of this application along with required parameters and its potential users. Utilized Figma for designing intuitive UI/UX layouts, developed mobile apps for rural dairy management and HRMS using Flutter, and implemented PHP for server-side logic and API development. I managed data storage and user authentication with MySQL and contributed to the HRMS app using React Native, while integrating frontend and backend with Laravel for seamless data flow.
- Implemented a hashing technique in SQL database for sensitive information, in PHP using brcypt.

Intern

- Valsco Technologies
- Contributed to the design and implementation of new features for the 'Jurident' mobile application, enhancing user engagement and overall functionality, resulting in improved user satisfaction.
- Utilized Flutter for building cross-platform applications, enabling efficient code reuse and ensuring consistent performance across both Android and iOS devices.
- Developed and integrated server-side logic using PHP, and managed data storage and retrieval with MySQL, ensuring smooth functionality and data integrity within the app.

App-development Lead

VinnovateIT (Technical Club)

TN. India 08/2023 - 10/2024

- Contributed as a member of the Design and Mobile Application Development team, collaborating on various projects to enhance application functionality and user experience.
- Successfully organized 'VinHack', the flagship hackathon of VinnovateIT, attracting over 1,500 participants, fostering innovation, and promoting teamwork among students.
- Gained valuable experience in a professional work culture, emphasizing the significance of continuous effort and dedication for personal and team growth.
- Worked on 'Messit' a cross-platform mobile application, where I learned that solving a small issue can impact a larger audience. This application has 20,000 active users and an average of 4.5-star rating across Android, iOS and the web.

Projects

- Dairy App Developed a Milk Dairy App to streamline operations for farmers and dairy businesses, utilizing Laravel for API creation in PHP with MySQL backend for CRUD operations, and optimized the UI/UX, including sound design, using Flutter.
- Serverless computing for microservices in a website Ensured secure MySQL database hosting by establishing secure access for administrative users, deploying a PHP application that met system requirements, utilizing a t2. micro EC2 instance for website hosting with SSH access for administrators, and safeguarding database connection details by storing them in AWS.
- Taxi data engineering mage project Designed a serverless microservices architecture using Google Cloud Functions for scalable taxi data analysis. When new data is uploaded to Cloud Storage, an event triggers a microservice to ingest, clean, transform, and load the data into BigQuery. This automated, real-time processing reduces infrastructure overhead, allows for automatic scaling, and ensures efficient, cost-effective performance during high traffic periods.
- Metaheuristic multi-objective optimization for efficient poultry management Developed a multi-objective optimization model in R using metaheuristic algorithms to enhance poultry management by balancing feed efficiency, cost savings, and sustainability; utilized genetic algorithms and particle swarm optimization to analyze farm data for improved resource allocation and productivity.

Certifications

- Python Learned core Python concepts including data structures, object-oriented programming, and modules, while gaining hands-on experience in scripting, automation, and API integration.
- Introduction to Microsoft Azure Cloud Services Gained expertise in designing and implementing data management using Azure data services. (11/2023)
- AWS Certified Cloud Practitioner Demonstrated fundamental knowledge of AWS cloud concepts like S3, Glue, Redshift (01/2024)
- AWS Academy Cloud Architecting Learned essential AWS cloud concepts, services, and architectural components, focusing on scalability and costeffectiveness, while gaining hands-on experience with AWS infrastructure and tools.

Skills/Tools

- Amazon Web services (AWS) | AWS S3 Simple Storage Service (S3) | SQL Server | AWS Redshift | AWS Elastic MapReduce (EMR)
- Snowflake | HDFS | Impala | Apache Spark | Data Warehousing | Data Modeling | Data Analysis | Database Design & Management
- ETL Process & Optimization | Data Architecture | System Design | Python | SQL | PowerBI | Looker Studio | Airflow | Data Pipelines
- Python | C/C++ | Java | R | SQL | ALP | Verilog | Dart | Kotlin | HTML/CSS/JS | PHP | Flutter | React Native | Visual Studio Code | Android Studio Code |

Research Work

- Systematic literature survey on performance of IoT protocols (Survey Paper)
- Smart Refrigerator Model for Food Safety and Health promotion using YOLOv10 (Research Paper)

Education

07/2021 - 07/2025

08/2023 - 10/23

05/2023 - 07/2023

MH. India

TN. India