Nithin Reddy Yanna

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EDUCATION

University at Buffalo Buffalo, NY
Masters in Engineering Science, Data Science *Aug. 2024 - Present*

Amrita Vishwavidya Peetham Chennai, India
Bachelors in Computer Science and Engineering *Oct. 2020 – Apr 2024*

TECHNICAL SKILLS

Programming: Java, Python, C/C++, JavaScript, HTML/CSS, R, jQuery, Data Structures and Algorithms, OOPs
Development: Spring Boot, React, JUnit, WordPress, Material-UI, MySQL, MongoDB, AWS S3
Developer Tools and Libraries: pandas, NumPy, Matplotlib, PyTorch, Git, CI/CD, Google Cloud Platform, IntelliJ, Eclipse, Jupyter Notebook, Android Developer

EXPERIENCE

Research Assistant Nov 2023 – Feb 2024
Amrita Vishwavidya Peetham *Chennai, India*

- Worked with Prof Dr.Natarajan B and proposed architectural improvements for reducing the transmission delay between IoT sensors and the main frame by using NSGA-II (Non-dominated Sorting Genetic Algorithm) based Energy Efficient Data Rate Controller.
- Simulation results demonstrated a 20 percent improvement over existing task-offloading techniques, without disrupting the scalability of the sensor network.

PROJECTS

Smart Claim Mar 2022

- Designed and developed an Android application with the goal of providing a seamless platform for auto insurance claim processing by digitalizing the reporting and verification process.
- Implemented RESTful API using Spring Boot, that served as the backend for the application enabling smooth integration between multiple devices.
- Facilitated authentication and views for three different user types (customer, police and insurance company), whose information and claims data were stored in MySql database, and AWS S3 was leveraged for storing images and files.
- Instant transmission of photos and data, along with geolocation tagging not only works as an additional layer of verification but would enable insurance companies to expedite the settlement process from days to minutes.

Crop Disease Detection A Comparative Study | *Amrita Vishwavidya Peetham* Oct 2023 - Apr 2024

- Designed a detailed comparative study of 38 plant disease classes with a focus on diverse species, amassing over 70,000 photos, providing detailed insights into the behavior and performance of each class in the model
- Implemented Python scripts using BeautifulSoup for web scraping to retrieve images from various datasets, ensuring the dataset remained balanced with approximately 3 percent representation for each class.
- Developed an optimized DenseNet-based CNN model using PyTorch to achieve the disease detection accuracy of 98.22 percent, while optimizing key metrics such as precision at 0.975, recall at 0.976, and an F1 score of 0.977.

Quick Consult | *Amrita Vishwavidya Peetham* Sep 2022 - Dec 2022

- Developed a Full-stack web application targeted to reduce the gap between psychiatrists and patients which was awarded best in class project.
- Built with Spring Boot, HTML, Ajax, and jQuery, the website offers users a smooth experience in getting to know the doctors, checking their availability, and scheduling online consultations.
- Integrated Twilio's REST API to add functionalities like appointment reminders and multi-factor authentication to enhance customer security.

ACHIEVEMENTS AND CERTIFICATIONS

- Certification: 30 days of Google Cloud - Fundamentals
- Achieved third place for a collaborative effort in IDEATHON 2022 among 60 competing teams