Anushka Bangal

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Education

Worcester Polytechnic Institute

Master of Science in Computer Science (GPA: 3.42/4.0)

January 2023 - Present Worcester, MA

Savitribai Phule Pune University

Bachelor of Science in Computer Science (GPA: 9.14/10.0)

August 2018 – August 2022

Pune, India

Relevant Coursework

- Human Computer Interaction
- User Experience and Design
- Big Data Management
- Mobile and Ubiquitous Computing
- Digital Image Processing
- Database Management Systems
- Algorithms: Design and Analysis
- Machine Learning
- Foundations of Computer Science

Technical Skills

Languages: Python, C, HTML/CSS, JavaScript, Java, Kotlin, XML, SQL, PHP.

Developer Tools: VS Code, Android Studio (Giraffe), Jupyter Notebook, Eclipse, IntelliJ, Git, GitHub, WordPress.

Operating Systems: Linux, Windows 10. Databases: Oracle DB, MySQL 8.0 Softwares: Adobe Creative Suite, Figma.

Projects

Smart Parking Finder, WPI

May 2023

- Developed a real-time Smart Parking Finder App using Android Studio and Python, specifically tailored for Worcester Polytechnic Institute's students to address a specific challenge - parking issues on campus.
- Utilized the YOLOv8 DNN (Deep Neural Network), achieving 98% accuracy in detecting parking slot occupancy and availability through advanced computer vision.
- Implemented <u>Firebase</u> for robust data storage ensuring secure and efficient dynamic parking space information. Built, tested, and deployed the app through a CI/CD pipeline using GitHub.
- Implemented Google Map API's to refine user navigation with Geofencing for enhanced user awareness, delivering real-time notifications and updates on available parking spaces based on the user's proximity to WPI.
- View the demonstration of the app on You Tube.

Deepfake Image Classification, WPI

May 2023

- Contemporary Generative Adversarial Network (GAN) based Artificial Intelligence (AI) can produce lifelike images of human faces that can be difficult to distinguish from real photographs without close scrutiny.
- Utilized Python and integrated <u>Fast Fourier Transform</u> for pre-processing images and using the DML algorithm VGG16 on RGB images, achieved 98% accuracy in distinguishing real vs. artificially generated human facial images.

EventEase: Ticket Booking System, WPI

April 2023

- Headed the development of a user-friendly ticket booking platform for movies, concerts, and sports.
- Integrated SQL-driven database and PHP scripting for robust data management and processing.
- Designed a responsive front-end using HTML, CSS, and JavaScript to optimize user experience across various devices.
- Realized a 52% increase in user engagement through strategic user interface design and functionality enhancements.

BE MQP, Potato Plant Disease Detection and Classification

- Developed a web application for potato plant disease detection and classification using Python, Tensorflow, CNN (Convolutional Neural Network) and <u>Waterfall SDLC</u> (Software Development Lifecycle).
- Delivered timely disease notifications to farmers, offering crucial insights for crop protection from early blight to late blight diseases. This initiative aimed to encourage the adoption of technology in agricultural practices.

Software Developer Data Analysis using Big Data

May 2022

- Led team in developing a cloud-based project on AWS using PySpark and Hadoop Distributed File Systems which analysed data of software developers around the world.
- Configured Amazon EC2 instances, S3 buckets, and integrated HDFS for scalable and distributed data processing.
- Utilized Apache Spark, Amazon EMR, and <u>YARN</u> ensuring efficient resource management.