

Aishwarya Ramesh

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Experience

Graduate Research Assistant

Aug 2023 - December 2023

Old Dominion University - Computer Science Department (<https://handson.cs.odu.edu/>)

Norfolk, United States

- Conducted a clinical study to assess the impact of administering CBD oil as a therapeutic intervention for agitation in Alzheimer's patients. Employed Natural Language Processing, Python, Machine Learning, and Deep Learning Analysis to analyze survey data, providing valuable insights into the effectiveness of the treatment.
- Spearheaded the integration of MySQL database with Express, facilitating seamless data management and improving query performance by 50%.
- Implemented C#, Reactjs, TypeScript, and Nodejs to develop a robust web application, resulting in a 40% increase in user engagement and a 25% decrease in page load time.

Systems Engineer

March 2021 - Jun 2022

Infosys

Bangalore, India

- Created automation solutions for a US Telecom client by integrating applications using C#. Monitoring bots to detect and report errors, ensuring seamless operation of integrated systems. Designed and constructed responsive user interfaces with C# and stored procedures in the backend, leading to a 15% improvement in user satisfaction scores.
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Student Intern

Jun 2019 - Aug 2019

Mphasis

Bangalore, India

- Contributed to the testing department on the Edirham Payment System project, focusing on both card and cardless payment functionalities. Utilized DXC Technology as the primary technology for project implementation. Worked closely with cross-functional teams to analyze requirements, perform functional and regression testing, and ensure the delivery of top-quality software solutions.
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Projects

Sentiment Analysis on reviews of Breweries using text summarization | Python, Transformer - HuggingFace, Power BI

- Employed Large Language Models, Deep Learning Models, and Machine Learning Models to classify comments into positive, negative, or neutral sentiments. This approach helps to the larger field of sentiment analysis by collecting useful data about people's thoughts of breweries.

Digital Library with Search Engine | Elasticsearch, Kibana, HTML5, CSS, JavaScript, Bootstrap, jQuery, Laravel and PHP

- Developed a Digital Library project aimed at enabling users to search for electronic theses and dissertations (ETDs). The project used Elasticsearch for indexing, providing users with a user-friendly interface on the index page for ETD searches. Additionally, users could contribute by adding Thesis Documentation and searching for existing documents, enhancing accessibility to academic resources.

Faculty Attendance App | Swift 5, Xcode11.3, Firebase

- Created an application designed to efficiently handle and record data for managing faculty attendance. The application played a key role in monitoring faculty attendance by extracting data from the institution. It also implemented leave management standards, contributing to effective and standardized faculty administration processes.

House Price Prediction | Python, Pandas, PyTorch, Matplotlib, Seaborn

- Designed and implemented a robust House Price Prediction model using Python, demonstrating proficiency in machine learning and data science. Collected, cleaned, and preprocessed real estate datasets to ensure data quality.
- Employed advanced regression techniques, feature engineering, and model evaluation to achieve accurate predictions. Implemented data visualization techniques for insightful analysis and presented findings to stakeholders.

Medical Image Analysis | Python, Pandas, PyTorch, Matplotlib, Seaborn

- Implemented a medical image analysis pipeline using Python and PyTorch, showcasing expertise in deep learning and computer vision. Designed and trained convolutional neural networks (CNNs) to detect and classify abnormalities in medical images, contributing to improved diagnostic accuracy.
- Preprocessed and augmented diverse medical imaging datasets, ensuring robust model training and accurate predictions. Designed and trained convolutional neural networks (CNNs) to detect and classify abnormalities in medical images, contributing to improved diagnostic accuracy.
- Collaborated with domain experts to validate the model's performance and iteratively improved the algorithm for real-world applicability.

University Portal System | React.js, JavaScript, Material-UI, Node.js, Express, MySQL

- Designed and implemented the front end using React.js, leveraging Material-UI for a modern and intuitive user interface. Developed scalable and efficient back-end functionalities using Node.js and Express, ensuring smooth data flow and optimal performance.
- Implemented RESTful APIs for seamless communication between the front-end and back-end, facilitating a smooth user experience. Integrated MySQL database for efficient data storage, retrieval, and management, ensuring data consistency and integrity. Utilized Git for version control, enabling collaborative development and maintaining a well-documented codebase

Technical Skills

Programming Languages: Java, Python, JavaScript, C++, C#, PHP, TypeScript

Web Development: HTML/CSS, React, Node.js, Express.js, MaterialUI, SQL, MySQL

Other Tools and Technologies: Git, GitHub, GitLab, Express.js (JavaScript/Node.js), RESTful APIs, Machine Learning (TensorFlow, PyTorch), Data Analysis (Pandas, NumPy), JIRA, Agile/Scrum

Concepts: Operating System, Human Computer Interactions, Natural Language Processing, Artificial Intelligence, Machine Learning, Neural Networks, API, Database Normalization, Agile Methodology, Cloud Computing

Certification and Training Workshops

1. Data Science Using R from Microsoft Imagine Academy
2. AZ-900 – Microsoft Azure Fundamentals from Lex (Infosys Platform) and Udemy
3. Training on Java, C#, HTML, CSS, JavaScript from ETA (Education, Training and Assessment Department), Infosys.
4. iOS App Development courses with Swift (Level 01) from Creative Infotech
5. Programming in C, Object Oriented Programming Using C++ from NIIT
6. The Joy of Computing Using Python in NPTEL

Education

Old Dominion University

Master of Science in Computer Science (GPA: 3.65 / 4.00)

Aug 2022 - May 2024

Norfolk, United States

- **Relevant Coursework:** Algorithms and Data Structures Computer Architecture Data Visualization Database Concepts Malware Anal and Reverse Engineering Natural Language Processing Web Programming Human Computer Interactions Introduction to Networks Foundations of Computing

Visvesvaraya Technological University

Bachelor of Science in Information Science (GPA: 6.65 / 10.00)

Aug 2016 - Aug 2020

Bangalore, India

- **Relevant Coursework:** Python Application Programming Internet of Things Big Data Analytics Software Development Life Cycle (SDLC) C (Programming Language) C++ Database Management System (DBMS) Java SQL HTML Data Structures Software Testing Data Communications Operating Systems Web Technology Machine Learning Software Architecture Computer Networks .Net framework for application development