RACHANA K

Dot Net Developer │ Machine Learning │ Artificial Intelligence

Location: Bengaluru, India │ ☎: +91 9741493960 │ **Nationality**: Indian │ **Gender**: Female │ **DoB**:8th April 2001

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PROFILE AT A GLANCE

- Results-oriented and motivated software developer with **6 months** of experience as a **Post Graduate Trainee in Software Development.**
- 6 months of hands-on experience in software development with C# and .NET Framework.
- Proficient in Python, with experience in machine learning and Natural Language Processing (NLP) projects.
- MSc project focused on NLP-based multilingual code-mixed hate speech detection.
- Developed and submitted sentiment analysis models for DravidianLangTech RANLP shared tasks; authored working notes and presented at the conference.
- Active participant in HASOC 2023 for FIRE 2023 shared task, with submitted working notes on hate speech detection.
- **Skills and Strengths:**
  - **Backend Development**: Skilled in C# development using Entity Framework and ADO.NET for robust backend solutions.
  - **Programming Languages**: Proficient in C# and Python, with experience in machine learning and natural language processing.
  - **Machine Learning and NLP**: Experience in developing and deploying machine learning models for sentiment analysis and hate speech detection, including participation in shared tasks like DravidianLangTech and HASOC.
  - **Project Management and Collaboration**: Experienced in collaborative research projects, with contributions to conferences through working notes and presentations.
  - **Problem-Solving**: Strong analytical skills applied in creating solutions for multilingual, code-mixed data challenges in NLP.

EDUCATION

- **MSc in Computer Science** from Mangalore University, Konaje, India. -2023

- **Bachelor of Science** from Canara College, Mangalore, Mangalore University India - 2021

WORK EXPERIENCE

Organization	Designation	Duration
Shree Rama First Grade College, Kalladka	Lecturer	Oct 2023 – Jun 2024
M/s Nahars Engineering India Private Limited, India	PGT	Jun 2024 - Present

ROLES & RESPONSIBILITIES

NAHARS ENGINEERING INDIA PVT LTD

Backend Developer

- Developed, maintained, and optimized backend applications using C# with Entity Framework and ADO.NET, ensuring high performance and responsiveness.
- Collaborated with cross-functional teams, including frontend developers and QA engineers, to deliver scalable and reliable software solutions.
- Participated in code reviews and debugging sessions, following best practices for clean and maintainable code.

- Conducted data operations and managed databases, focusing on optimizing queries and improving data retrieval efficiency.
- Assisted in deploying applications, monitoring server performance, and troubleshooting backend issues to ensure smooth operation in production environments.

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PROJECT HANDLED
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1. Project Title: Employee Management System Project

Overview: The Employee Management System is a comprehensive web application designed to manage employee data, handle leave requests, and generate automated Management Information System (MIS) reports. The project leverages modern technologies to streamline employee management processes, improve data accuracy, and enhance decision-making through automated reports.

Key Features:

1. Employee Management:
- User authentication and authorization.
- CRUD operations for employee details.
- Role-based access control.

2. Leave Management:
- Leave application and approval workflow.
- Tracking leave balances and history.
- Automated notifications for leave requests and approvals.

3. Automated MIS Report Generation:
- Use of machine learning algorithms in Python to analyse and generate MIS reports.
- Scheduled report generation and distribution.
- Customizable report templates and metrics.

4. Integration and Deployment:
- Continuous integration and deployment using Azure DevOps.
- Source control and project management in Azure DevOps.
- Automated testing and build pipelines.

5. User Interface:
- Intuitive and responsive design.
- Dashboard for quick insights and analytics.
- Tabs and panels for easy navigation (e.g., OD Request, Leave Request).

Tools and Platforms:
- **Visual Studio 2022:** Integrated development environment for coding, debugging, and testing.
- **Azure DevOps:** Project management, version control, CI/CD pipelines, and collaboration.
- **MSSQL:** Robust database management system for handling employee data and leave records.
- **Python:** Implementing machine learning models for intelligent report generation.

Project Contributions:
- Developed and maintained the backend logic using C# and .NET framework.
- Designed and implemented database schemas and procedures in MSSQL.
- Integrated machine learning models for predictive analytics and automated reporting.
- Ensured seamless deployment and continuous integration using Azure DevOps.
- Collaborated with cross-functional teams to gather requirements and deliver high-quality software.

2. Project Title: Multilingual Code-Mixed Hate Speech Detection

Overview: Multilingual code-mixed hate speech detection is a binary classification problem in NLP. Detection of hate speech is challenging, especially in code-mixed text containing a mixture of different languages. The goal is to detect hate speech in multilingual code-mixed languages.

Exploring the NLP concepts such as pre-processing, feature extraction and language models like machine learning, deep learning, transfer learning.

3. Project Title: Sentiment Analysis in Code-mixed Tamil and Tulu Texts using fastText

Overview: Participated in DravidianLangTech RANLP shared tasks on Sentiment Analysis and submitted working notes and attend the conference. Also Participating in FIRE 2023 shared task on HASOC 2023 and submitted the working notes.

KEY SKILLS

- Machine Learning
- MSSQL
- C
- Deep Learning
- GitHub
- C++
- Python
- Visual Studio