Nauman Ahmed

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Address: Passau, Germany

LANGUAGE SKILLS

ENGLISH - B2 | **GERMAN - A1**

WORK EXPERIENCE

06/2023 – 12/2023 Köln (Remote), Germany
FULL STACK WEB DEVELOPER EVENTPLANNING24

I have been working as a React JS developer using TypeScript and I have also been involved in building Next JS applications. Following is my role and responsibilities:

- RESTful API communication
- Tweaking UI
- Building features in the existing platform
- Serializing APIs

09/2019 – 09/2021 Karachi, Pakistan
SOFTWARE ENGINEER STRATGIT

I worked as a React JS, React Native, and Vue JS developer at this firm. Following were my responsibilities at the firm I was operating at:

- Optimizing applications to maximize the platform's performance
- Designing responsive website along with mobile-friendly utilities
- Testing the application for usability, maintenance, and bug fixation

PROJECTS

06/2024 – 12/2024
Master Thesis - Coverage Path Planning

My master's thesis focuses on Coverage Path Planning (CPP), an essential problem in robotics and automation. CPP involves determining the most efficient path for a robot to cover an entire area without unnecessary overlap. This has significant applications in various fields such as agricultural automation, floor cleaning robots, and search and rescue missions. My research delves into optimizing algorithms for CPP, addressing challenges such as obstacle avoidance, energy efficiency, and minimizing coverage time. Through extensive simulations and practical implementations, I have developed advanced techniques that enhance the effectiveness and efficiency of autonomous systems in executing complete coverage tasks.

04/2024 – 08/2024
D3 Dashboard - Liver Cirrhosis Data Analysis

Developed an interactive dashboard using D3.js to analyze liver cirrhosis data effectively.

Features:

- **Density Plot:** Utilizes D3.js to visualize the distribution of triglyceride levels across different stages of liver cirrhosis, offering insights into how various levels change with disease progression.
- **Bar Chart:** Leverages D3.js to compare the prevalence of variables among patients at various stages of liver cirrhosis, facilitating an easy comparison of this condition's frequency across stages.
- **Radar Chart:** Displays a multi-variable comparison using D3.js, showing various clinical parameters (e.g., Bilirubin, Cholesterol, Albumin, etc.) across different stages of liver cirrhosis, helping to understand the overall health impact and progression of the disease.
- **Scatter Plot:** Employs D3.js to examine the relationship between various levels, providing a scatter distribution of these variables to identify potential correlations

Functionality:

- Interactive controls to filter and reset views, enabling users to explore the dataset dynamically and focus on specific aspects or variables.
- Utilized a combination of statistical analysis and visual exploration to identify trends and patterns within the dataset.

Technologies Used: React JS, D3.js for dynamic data visualization, data wrangling libraries (Pandas, NumPy) for preprocessing.

Link https://d3visualization.vercel.app/

06/2023 – 12/2023
Gründungsstipendium NRW

Eventplanning24 successfully received the scholarship grant by the Ministry of Economics, Industry, Climate Protection and Energy of the State of North Rhine- Westphalia with a monthly grant and individual coaching.

2019 – 2020
Image Processing Technique to Measure and Align Vehicle Wheel Cylinder with Cloud Management System

The project was meant to provide assistance in measuring mechanical parts using image processing techniques.
Following is the brief:

- Image Processing was performed using Python
- Web development was performed using Django
- The solution included a website for cloud data and a desktop application for technicians • Worked in collaboration with a Private Limited Company based in Balochistan, Pakistan
- Time-efficient measurement results as well as high precision were required

EDUCATION

10/2021 – 02/2025 Passau, Germany
MASTER OF SCIENCE IN COMPUTER SCIENCE University of Passau

2016 – 2020 Karachi, Pakistan
BACHELOR OF ENGINEERING IN SOFTWARE ENGINEERING Usman Institute of Technology

DIGITAL SKILLS

Front end Technologies

React JS | Next JS | D3.js | Typescript | Jest | Playwright

Back end Technologies

Node JS | GraphQL | Django | Web services and RESTful APIs | Express JS

Databases

Mongodb / Mongoose | MySQL, SQL, SQLite, PostgreSQL | PostgreSQL

Deployment

AWS deployment Framework | Heroku | Vercel | CI/CD GitHub | DigitalOcean

CERTIFICATIONS

React, NodeJS, Express & MongoDB - The MERN Fullstack Guide (Udemy)

https://www.udemy.com/certificate/UC-f0ed7f81-8a5a-4a79-87d3-9d7e9eda09e4/

PUBLICATIONS

2022

An efficient Image Processing Technique to Measure and Align Vehicle Wheel Cylinder with Cloud Management System