Khadija **Mehmood**

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Education

FAST NUCES *Islamabad*
BS in Software Engineering *September, 2020 – December, 2024*

Experenice

Eastside *remote*
Website Manager *March 2024 – December 2024*
- Manage and maintain the website to ensure optimal performance and user experience.
- Enhance the user interface (UI) for a more intuitive and engaging visitor experience.
- Implement SEO strategies to improve search engine rankings and drive organic traffic.

GeoSynthAI *Remote*
Full Stack Engineer (Part-time) *Decemeber 2024 – Present*
- Develop and manage GeoSynthAI's full-stack tasks, handling both frontend and backend.
- Integrate AI solutions.
- Contribute to AI research, with work published in IEEE and Springer Conferences.

Ajencia *remote*
Web Developer Intern (Part-Time) *March 2025 – Present*
- Assisted in front-end development using WordPress, leveraging themes and plugins to quickly build responsive and visually appealing websites.
- Applied UI/UX principles learned from Udemy-certified training to enhance user interfaces, ensuring intuitive and engaging user experiences.
- Collaborated with the development team to troubleshoot layout issues and implement design feedback, improving overall site functionality and performance.

Skills

SE Skills: DevOps, Software Quality Assurance, Full Stack Development
Languages: Node js, React, Sql, Html/Css, Bash, Javascript
Tools: Docker, Kubernetes, Jenkins, Git, DVC, MySql, Github, Wordpress
Platforms: Windows, Ubuntu
Soft Skills: Leadership, Event Management, Time management

Projects & Publications

GeoSynthAI: Vistas (Generative AI, Digital Image Processing):
Team Lead – Managed full-stack development and AI module integration, implementing AI-driven satellite imagery to reduce urban planning time and costs.

Kernal Kart
Developed a MERN stack e-commerce application, Kernel Kart, for seamless CRUD operations. Deployed the application on the cloud.

Airplane Management System
Developed an airplane management system in Java, leveraging object-oriented programming principles. Designed and implemented features for flight scheduling, passenger management.

Multi-Episode Application Deployment on Kubernetes Cluster
Configured a Kubernetes cluster on virtual machines, establishing distinct development and production namespaces. Dockerized and deployed individual episodes as separate pods within the Kubernetes cluster. Implemented horizontal scaling to efficiently manage workload fluctuations

Generative AI-based Approach for Scalable and Cost-Effective Sustainable Urban Planning using Satellite Imagery

Study on comparitive analysis of fine-tuning and usage of image diffusion models for scale and spatial-sensitive generation of imagery, feasibility for industry usage, published in ICAHIS'2024 and selected in Computer Vision Projects Expo 2024.

Acheivements

May 2023   **Creative Secretary**, Led and managed the society's creative processes, overseeing team operations and handling multiple accounts.