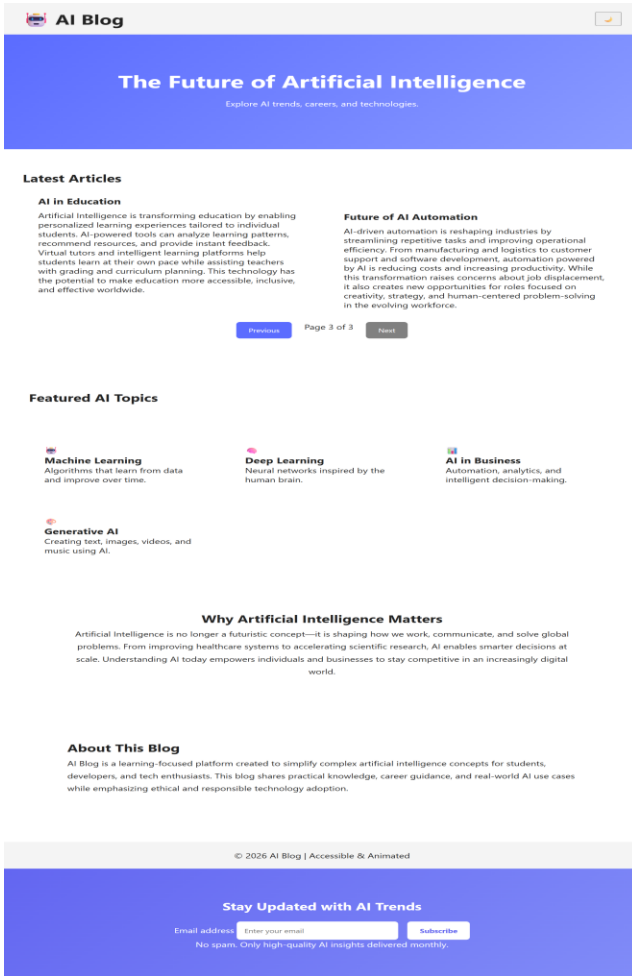# The Blog

AI Blog Website – Portfolio Project Description

AI Blog is a modern, responsive, and performance-optimized blog website designed to educate users about Artificial Intelligence, its applications, and future trends. The project demonstrates strong front-end development fundamentals using vanilla HTML, CSS, and JavaScript while integrating professional-grade animations, accessibility, and data-driven functionality.

Project Overview

This website was built as a portfolio project to showcase real-world front-end development skills without relying on heavy frameworks. The blog dynamically loads content from a JSON file, implements pagination, and uses GSAP for smooth, engaging animations. The layout is fully responsive and optimized for both desktop and mobile devices.

Key Features

- Dynamic blog loading using JSON
- Pagination for scalable content handling
- GSAP-powered animations for smooth user experience
- Responsive design using CSS Grid and Flexbox
- Dark mode toggle for improved user comfort
- SEO-friendly semantic HTML structure
- Accessibility support using ARIA roles and keyboard navigation
- Performance-optimized vanilla JavaScript implementation

Accessibility & Performance

Accessibility was a major focus during development. Semantic HTML elements such as header, main, section, article, and footer were used to improve screen reader support. ARIA attributes, keyboard navigation, focus states, and live regions were implemented to ensure inclusive usability. Performance was optimized by avoiding unnecessary dependencies and keeping the DOM structure clean.

Tools & Technologies Used

- HTML5 – Semantic structure and SEO optimization
- CSS3 – Responsive layout, modern UI design, and dark mode
- JavaScript (ES6) – Dynamic rendering, pagination logic, and interactivity
- GSAP – High-performance animations and scroll-based effects
- JSON – Structured blog content management
- ARIA – Accessibility enhancements

Use Case & Learning Outcome

This project reflects real-world frontend development practices and demonstrates the ability to build scalable, accessible, and maintainable web applications. It highlights skills such as DOM manipulation, animation orchestration, accessibility awareness, and clean code organization, making it a strong portfolio project for front-end or UI developer roles.