Nanofertech Internship Training Programme

Full Stack Development with AI

2024/2025

Programme Overview: Nanofertech is pleased to offer an immersive internship training programme designed for aspiring developers and AI enthusiasts. This programme focuses on developing full stack web development skills while integrating AI capabilities into applications. Interns will gain practical experience in modern web technologies and AI fundamentals, preparing them for a successful career in tech.

Duration: 8-10 Months

Training Mode: Learn on the Job

Programme Structure:

The internship programme is structured around key modules that will guide interns from the fundamentals to advanced topics, covering both frontend and backend development as well as AI integration.

Modules Breakdown:

1. Landing Page Development with Canva

- **Overview:** Learn to design visually appealing landing pages with Canva, a user-friendly graphic design tool. Understand the importance of UI/UX in the user journey.
- **Key Learnings:**
    - Basics of web design and branding
    - Elements of an effective landing page
    - Optimizing landing page for engagement and conversion
    - Introduction to Canva's interface and features

2. Mastering Programming Languages (JavaScript, R, Python)

- **Overview:** A comprehensive overview of essential programming languages for full stack development and AI. Interns will gain practical skills in three powerful languages.

- **Key Learnings:**
  - **JavaScript:** Dynamic web development, event handling, and asynchronous programming
  - **R:** Data analysis, visualization, and basic machine learning models
  - **Python:** Scripting, data manipulation, AI/ML basics, libraries like Pandas and NumPy

3. HTML & CSS Fundamentals

- **Overview:** Understand the building blocks of web development through HTML and CSS. These technologies form the backbone of all web pages.
- **Key Learnings:**
  - HTML tags, attributes, and document structure
  - Styling with CSS (selectors, layouts, responsiveness)
  - Creating responsive designs using media queries
  - Understanding the box model, flexbox, and grid

4. Frontend & Backend Frameworks

- **Overview:** Dive into essential frameworks that are used in modern full stack development. Learn how to build dynamic applications and APIs.
- **Key Learnings:**
  - **Frontend:** React.js – building interactive user interfaces, component-based architecture
  - **Backend:** Node.js with Express – creating RESTful APIs, handling requests and responses
  - Understanding MVC (Model-View-Controller) architecture

5. Relational Databases and SQL

- **Overview:** Master relational database management and querying with SQL. Learn how to manage and retrieve data efficiently.
- **Key Learnings:**
  - Database design and schema creation
  - Writing SQL queries: SELECT, INSERT, UPDATE, DELETE
  - Joins, aggregations, and transactions
  - Integrating SQL databases with web applications

6. AI Fundamentals

- **Overview:** Understand the core principles of Artificial Intelligence. Gain insight into how AI can be used to enhance applications and automate processes.
- **Key Learnings:**
  - Introduction to AI and machine learning
  - Data pre-processing and model selection

- o Basics of supervised and unsupervised learning
- o Popular AI frameworks (TensorFlow, Scikit-Learn)

7. Integrating AI in Full Stack Applications

- **Overview:** Learn how to integrate AI capabilities into a full stack application to provide smarter, data-driven functionalities.
- **Key Learnings:**
    - o Building AI-driven features like recommendation engines, chatbots, and predictive models
    - o Connecting backend services to AI APIs
    - o Implementing machine learning models into production
    - o Deploying a full stack AI-powered application

Internship Objectives:

By the end of the internship, participants will be able to:

1. Design and develop dynamic landing pages using Canva.
2. Demonstrate proficiency in JavaScript, R, and Python for web and AI development.
3. Build responsive websites using HTML and CSS.
4. Create full stack applications with frontend and backend technologies.
5. Manage databases with SQL and integrate them with applications.
6. Understand the core concepts of Artificial Intelligence and its applications in real-world scenarios.
7. Integrate AI-driven features into full stack applications, offering smart functionalities

Assessment & Certification:

- **Assessments:** Practical projects and coding challenges after each module.
- **Final Project:** Interns will create a comprehensive full stack web application incorporating AI features.
- **Certification:** Upon successful completion of the programme, interns will receive a **Certificate of Completion** from Nanofertech Sdn. Bhd.
- **Accomodation:** At Nanofertech, we understand the importance of saving time on commuting, allowing you to focus more on enhancing your brain function. With our comfortable accommodations, you can relax and recharge in our state-of-the-art gym, sauna, and pool, or engage in fun activities like board games and ping pong. Exercise is key to boosting cognitive performance and we provide the perfect environment for both work and rejuvenation.

We look forward to welcoming you to the **Nanofertech Full Stack Development with AI Internship Programme**!