



 THINK BIG . TRAIN SMART . WIN HARD

ALGOFORGE STUDIOS

FULL STACK DEVELOPMENT | COURSE BROCHURE



ALGOFORGE STUDIOS

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ABOUT

US



AlgoForge Studios is a leading training and AI solutions company specializing in Data Science, Machine Learning, Cybersecurity, Generative AI, and Full-Stack technologies.

We provide industry-focused training, live projects, guaranteed paid internships, and placement support to help learners build strong, job-ready technical skills.

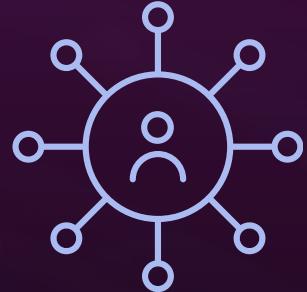


FULL STACK DEVELOPMENT

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Full Stack Development equips learners with the skills to design, develop, and deploy complete web applications from start to finish. This course provides hands-on experience with modern frameworks, programming languages, APIs, and databases, enabling learners to build responsive, secure, and scalable applications. From UI design to server-side processing and deployment, students gain a complete understanding of how real-world web applications work.

At AlgoForge Studios, the Full Stack Development program focuses on practical learning, industry-relevant tools, and project-based training—preparing learners for roles such as Full Stack Developer, Web Developer, Software Engineer, and Application Developer in today's fast-growing tech industry.



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OUR KEY BENEFITS

- Guaranteed Paid Internship
- Industry-Recognized Certification
- 24/7 Access to Learning Materials
- Dedicated Support System
- Live Projects & Real Client Work
- Placement Assistance
- Expert Trainers (7+ Years Experience)

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COURSES UNDER THIS DOMAIN



**Full Stack Developer Pro
Course**



**UI/UX Designer
Course**



**Python Full Stack Developer
Course**

FULL STACK DEVELOPER PRO COURSE

- Duration: 12+ weeks
- Mode: Online
- Level: Beginner
- Course Fee: ₹45,000





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COURSE CURRICULUM

01

Data Structure & Algorithm

- Introduction to Programming
- Programming Basics, Data Types and Code Flow
- Input, Output, and Exceptions
- If statement, Loops and Code flow
- Functions
- Recursion
- Time and space Complexity
- Bit Manipulation
- Strings
- Data Structures
- 1-D Array
- 2-D Array
- Array List and Linked List
- Stack
- Application of Stack
- Queue
- Applications of Queue
- Tree (Traversals)

- Tree (Construction of tree from traversals, height of tree, mirror of tree)
- Tree (LCA, Diameter)
- BST
- Heaps
- Dynamic Programming
- Graph (BFS, DFS)
- Graph (Cycles in Graph)
- Graph (DFS, BFS on matrix)
- Graph ([Dijkstra Algorithm, Flood Fill Algorithm])
- Sorting using Divide and Conquer and implementation

- Maths
- Greedy
- Graph [Minimum Spanning Tree, Floyd Warshall, TopologicalSorting]
- Algorithm
- Linear Search and Binary Search
- Ternary Search
- Two Pointers
- Bit Manipulation
- Simple Array Sorting and its implementation

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COURSE CURRICULUM

02

Back-end Development, Databases & DevOps

- NodeJS
- Getting started with NodeJS
- Interactive node with REPL
- Node Module System
- File system & streams
- Events
- Web servers with HTTP module
- Understanding Cluster & Working threads
- AngularJS
- Introduction to Express
- Building Restful APIs using express
- Building Restful APIs using express II
- Express Middlewares
- Express Middlewares continue
- Routing

- MongoDB
- Database Integration - MongoDB
- CRUD with Mongoose & MongoDB I
- CRUD with Mongoose & MongoDB II
- Mongo Data Validation
- Modelling Relationships
- Authentication, Authorization I
- Profanity Filtering and Post Moderation
- Caching & Performance
- Caching & Performance continue
- Protecting express App

- GIT
- Getting started with Git
- Working with Git repositories
- Branching and merging
- Git workflows
- Using Git in IDE
- Git server administration

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COURSE CURRICULUM

03

Front end Development

- HTML
- Introduction To Web Development
- How Web Applications Work
- An introduction to HTML and CSS
- Tools for Web Development
- How to View Deployed Web Pages
- Five Critical Web Development Issues
- The HTML syntax, Images, Basic Skills for Working with Images
- Advanced Skills for Working with Images
- Related Skills for Working with Images, Forms, How to Use
- Forms and Controls, Other Skills for Working with Forms
- How to Use the HTML5 Features for Data Validation, How to Use the HTML5 Controls
- A Web Page that Uses HTML5

- CSS
- Using CSS to Format the Elements of a Web Page
- An introduction to CSS
- Measurements and Colours, Selectors, Cascading Style Sheets
- How to Work with Text
- A Web Page that Uses External Style Sheets
- Introduction to Media Queries
- Creating applications with Mobile-first Approach
- Difference between Desktop-first vs. Mobile-first

- Bootstrap
- Creating Your First Web Page with Bootstrap
- Including Bootstrap's Files via CDN, Bootstrap Grid System,
- Creating Fixed, Fluid Layout with Bootstrap
- What is Responsive Web Design or Layout?
- Bootstrap Typography, Tables, Lists, Forms, Input Groups, Buttons, Images, NavBar etc
- Creating a form using Bootstrap
- Creating a Static Site with Bootstrap

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- JavaScript
- Introduction to JavaScript Language, Using Script Tag, Inserting
- Java Script into Tags, Linking Java Script from Separate Files,
- JavaScript Expression and Operators, Defining and Naming
- Variables, Data Types, Expression, Returning Values from Functions
- Function: Advanced Concepts
- Function as Data, Anonymous Function, Callbacks, Self-invoking
- Function, Inner (Private) Functions, Functions that Return Functions
- Function: Rewriting itself, Variable Scopes, Function Level, No Block Level, Global Level
- What Are Objects?
- Objects and the Dot Syntax, Creating an Object with a Constructor,
- Properties of the Object, Methods of the Object
- Introduction to ES6 Features

- JQuery
- JQuery Introduction
- Install and Use jQuery Library
- Un-Obstructive JavaScript
- First jQuery Example
- jQuery Syntax
- Basic Selectors, Filters
- ReactJS
- ReactJS Fundamentals
- Introduction to ReactJS, React and SPA
- The Create-react-app CLI, Project Structure, React Introduction, View Technology
- React and SPA, The Create-react-app CLI, Project Structure,
- Understanding What React Is, What Problem React Solves

First React Project, Code Formatter Setup, Building Static Site
Using React, JSX, Introduction, States and Properties, Stateless Components, Stateful Components, Styling Approach in React
Component Lifecycle Events, Event Categories, Event Definition, Mounting and Unmounting Events, Components and Props, State and Lifecycle, Handling Events
useState, useEffect, useRef
Working with Hooks Example
Fetching Endpoint with Hook
Working with Lazy Initialisation with Hooks
Introduction to useContextRedux for State Management, Introduction to Redux, Basic Building Blocks, Store, Actions, Action Types and Action Creators,



COURSE CURRICULUM

Dispatch Mechanism,
Vanilla Redux for Better
Understanding,
Redux with ReactJS, The
Application Flow,
Choosing the Right
Model for Store,
Implementing Redux for
a Basic Application
Introduction to React
Router
Route Configuration –
Link, Navigate, Route,
Router

- Cloud – AWS
- Creating AWS Account,
Understanding ec2 Instance
- Deploying Spring boot Application with Containerisation
- Introduction to Amazon Simple Storage Service (S3)
- S3 Regions, Buckets and Objects
- Create Bucket in S3, Upload – Make Public – Rename – Delete File in S3, Delete and Restore Files in S3
- Testing : JUNIT, JEST

04

Capstone Projects

- Combination of all skills learned throughout the course
- Project presentation skills



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UI/UX DESIGNER COURSE

- Duration: 8+ weeks
- Mode: Online
- Level: Beginner
- Course Fee: ₹20,717



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01

The "U" of UX/UI

- UX / Design Thinking
- User-Centered Design Research
- Empathy & Users
- UX Interviewing
- Insight Synthesis
- Persona Creation
- Decision Mapping
- Prototyping
- User Testing
- Quiz Module 1

02

Interface Design

- User Interaction
- User Interface & Affordance
- Invision
- Project Management & Tools
- User-Centered Design
- Accessibility & Usability
- UI Patterns & Libraries
- Atomic Design
- Adobe XD and Figma
- Quiz Module 2

03

Visual Design Theory

- Typography
- Heuristics, Usability & UI Iterations
- Continuity & Branding in UX & UI
- Iconography
- Quiz Module 3



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COURSE CURRICULUM

04

Interaction Design

- HTML
- CSS
- GitHub
- Bootstrap
- JavaScript
- jQuery
- Quiz Module 4

05

Complimentary Module Soft Skills Development

- Business communication
- Preparation for the Interview
- Presentation Skills

06

Complimentary Module Resume Writing

- Resume Writing



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PYTHON FULL STACK DEVELOPER COURSE

- Duration: 9+ weeks
- Mode: Online
- Level: Beginner
- Course Fee: ₹35,000



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01

Python Basics

- Introduction, and why python in the industry lot
- Software required and their installation
- python(or any language) basics
- Reference variables
- Where,how,how much memory get allocated during coding? (related to python.exe)
- What is IDE, different IDE's available in the market - different flavors/ implementations of python
- Quiz Module 1

02

Python

- Python comments
- Python identifiers
- Python data type-both simple and complex
- Data structure
- Array, linked list (singly and doubly), hashtable
- Python type casting
- Need of virtual environment and everything related to it, pip
- Integer catching in python
- Concept of importing anything
- Transfer looping statements

- Iterative
- Nested if else
- If elif elif.....else
- If else
- Selective
- Python looping
- Python operators
- Python string class methods overview
- Python built-in functions overview
- Quiz Module 2



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COURSE CURRICULUM

03

Flask Introduction

- Introduction and Overview
- Environment
- Application
- Routing
- Variables rules
- URL building
- HTTP methods
- Templates
- Static files
- CGI
- Deployment
- Sijax
- SQL Alchemy
- SQLite

04

Django Language

- Covering basics and overview
- Environment
- Creating a project
- The life cycle of Apps
- Admin interface
- Creating views
- Url mapping
- Template system
- Models
- AJAX
- RSS



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05

RESTful API

- Comments
 - Caching
 - Apache Setup
 - Sessions
 - Cookies Handling
 - File uploading
 - Form processing
 - Generic Views
 - Sending Emails
 - Page redirection
 - Quiz Module 4
- Introduction
 - Environment Setup
 - Resources
 - Messages
 - Addressing
 - Methods
 - Statelessness
 - Caching
 - Security
 - Java (JAX- RS)
 - Quiz Module 5

06

Full Stack GIT

- Introduction
- Basic concepts and key points in GIT
- Setting up Environment
- Create operation
- Clone operation
- Making changes
- Review
- Commit
- Push
- Solving issues out of Conflicts
- Managing Branches
- Patch
- Tagging
- Fixing up mistakes
- Delete
- Renaming operation
- Move
- Stash
- Update
- Quiz Module 6



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07

Logger Overview

- Introduction
- Installation
- Architecture
- Configuration
- Various Logging Methods
- Various Logging Levels
- Log Formatting
- Logging in Files
- Logging in Database
- Quiz Module 7

08

Jira Ticketing Tools

- Introduction and why we require this?
- Issues related to Tasks
- Tracking the lifecycle of an Issue
- Installation
- Login
- Dashboard
- View Screen
- Creating an Issue
- Cloning of an Issue
- Created vs Resolved Issues
- Pie chart of Workload
- Reports

- Advanced Search
- Watch and Vote on Issue
- View/ Change History
- Labeling, Moving, Editing, Mailing, Linking of an Issue
- CSV for creating Issue
- Converting Issue to SubTask and Vice-Versa
- Creating a SubTask
- Quiz Module 8



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09

Agile Methodology

- Introduction
- Useful terms
- Characteristics of Agile Methodology
- Daily Standup
- Product Backlog
- Release Planning
- Iteration Planning
- Quiz Module 9

10

Numpy Library

- Introduction
- Creating, Slicing, Indexing of Array
- Numpy Data types
- Copy and View
- Shaping, Reshaping, Iteration of Numpy Array
- Search, Sort, Filter, Join, Split of Numpy Array
- Numpy Random Introduction
- Seaborn module
- Random permutation
- Various types of Distributions
- Numpy fun: - various operations like Creating functions, Simple Arithmetic, Rounding decimals, Logs, Summation, Products, Differences, Finding LCM, GCD, Trigonometric, Hyperbolic, Set operations.
- Quiz Module 10

11

Pandas Library

- Introduction
- Pandas Series and Dataframes
- Reading Pandas CSV and JSON
- Pandas Analyzing Data
- Removing Duplicates
- Cleaning Data, Empty cells, Wrong Format, Wrong Data
- Pandas Correlations
- Quiz Module 11

CAREER OPPORTUNITIES FOR FULL STACK DEVELOPMENT



- Full Stack Developer
- Front-End Developer
- Back-End Developer
- Web Application Developer
- Software Engineer
- UI/UX Developer
- JavaScript Developer
- MERN / MEAN Stack Developer
- API & Integration Developer
- DevOps / Deployment Engineer (Junior Level)



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WHY CHOOSE ALGOFORGE

AlgoForge Studios stands out as a leading training hub because we combine industry expertise with practical, project-driven learning. All our courses are taught by experienced professionals with strong real-world backgrounds. We focus on hands-on training through live projects, case studies, and real client assignments, ensuring students gain skills that directly meet industry needs. Our programs are powered by advanced infrastructure including NVIDIA DGX A100 systems for high-performance AI and deep learning workloads. We also provide internships, placement support, personalized mentorship, and portfolio-building guidance to help students confidently begin their careers. With flexible learning options, an updated curriculum, and affordable fees, AlgoForge Studios offers a complete, career-focused pathway for anyone looking to excel in tech.



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GET IN TOUCH WITH US

Thank you for joining us on this journey through innovation and technology. For further inquiries or collaborations, please feel free to contact us



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