



TEXAS McCombs

The University of Texas at Austin
McCombs School of Business



PROFESSIONAL CERTIFICATE IN

FULL STACK SOFTWARE DEVELOPMENT:

BUILDING SCALABLE CLOUD APPLICATIONS

28 Weeks Online | Live Mentorship Sessions | Project-based Learning

A Highly Affordable University Certificate Program

TAKE THE NEXT STEP IN YOUR CAREER WITH IN-DEMAND SOFTWARE SKILLS



\$122,968

Average salary of a Software Engineer in the United States.

Source: Indeed



853,000

Projected demand for Full-Stack Developers by 2024.

Source: U.S. Bureau of Labor Statistics



1ST

'Software Developer' is ranked #1 in the 100 Best Jobs in 2023.

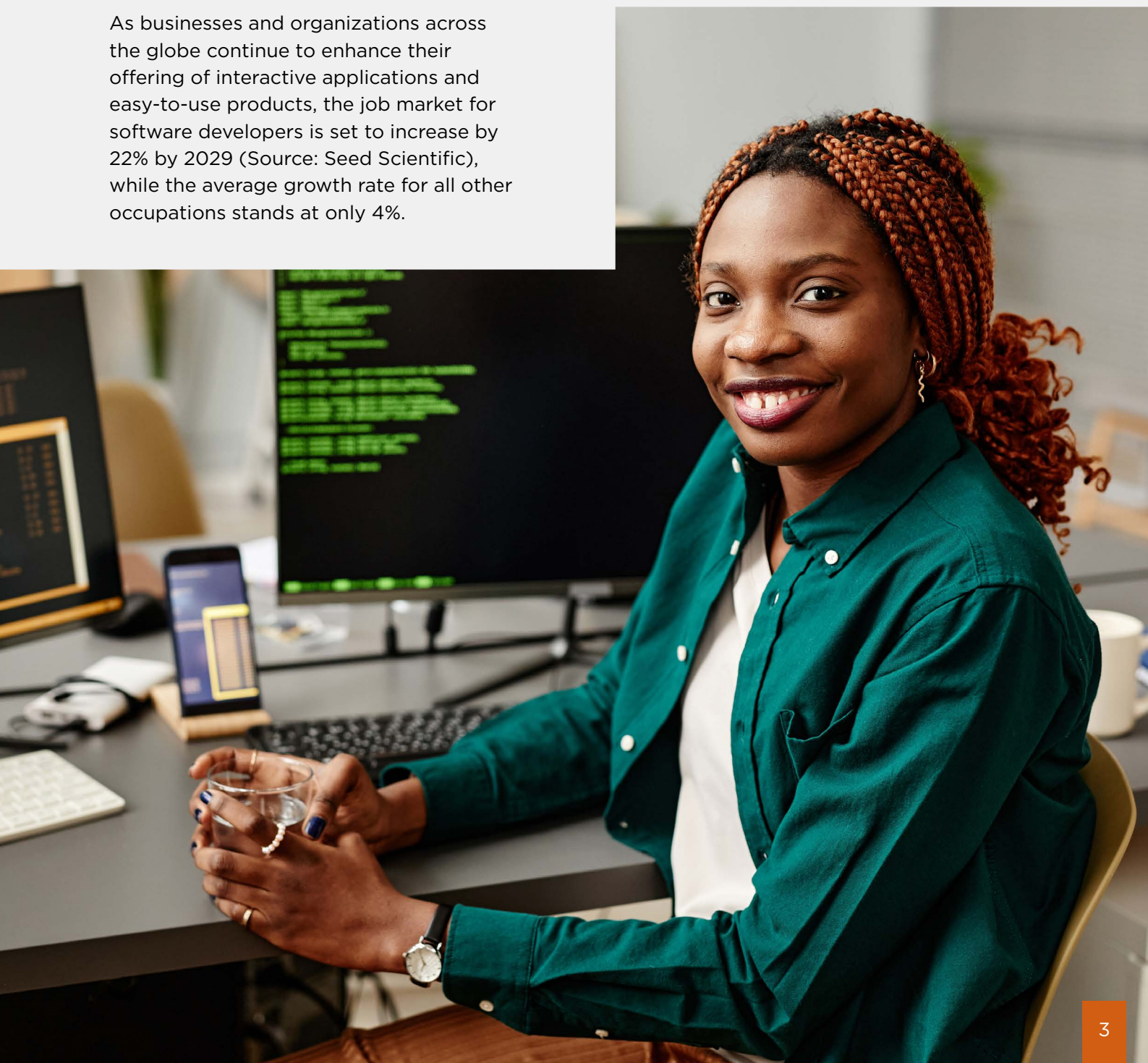
Source: USNews.com

NEW, HIGH-PAYING OPPORTUNITIES IN SOFTWARE

Software developer is an instrumental job role in any organization's core process. They are strong at coding and understand how the applications function at every level: from the fundamentals of server processes to back-end programming as well as database architecture and front-end design. Among the most valued members of a company, they are able to translate between the layers of a system and are crucial for planning top-notch product performance.

As businesses and organizations across the globe continue to enhance their offering of interactive applications and easy-to-use products, the job market for software developers is set to increase by 22% by 2029 (Source: Seed Scientific), while the average growth rate for all other occupations stands at only 4%.

The Professional Certificate in Full Stack Software Development: Building Scalable Cloud Applications is designed for learners to kickstart a career in software development, with hands-on working knowledge of in-demand tools and programming languages. These skills will enable learners to start a software career post program completion.



ABOUT THE PROGRAM

Our Full Stack Software Development program offers a transformative learning experience designed to equip learners with the skills and support needed to secure rewarding tech jobs. Through our innovative flipped-learning model, we put you in the driver's seat of your learning journey. Flexibility is at the heart of this approach, allowing you to learn at your own pace while engaging with high-quality content. Collaborating with peers fosters a dynamic learning environment where diverse perspectives thrive. This real-world interaction helps you develop essential teamwork skills.

GUIDANCE EVERY STEP OF THE WAY

Mentorship sessions with experienced industry professionals provide invaluable insights and personalized guidance. These sessions illuminate the path ahead, helping you make informed decisions about your tech career. Your journey is further bolstered by the development of an e-portfolio showcasing your projects, skills, and growth. This powerful tool demonstrates your abilities to potential employers, setting you apart in a competitive job market. Our commitment doesn't end with completion. We provide comprehensive career assistance, including career guidance webinar series and e-portfolio preparation tips, ensuring you're not just job-ready but poised for success. Embark on your tech career journey with us, where flexibility, collaboration, mentorship, and career support converge for a comprehensive learning experience.



28 Weeks Online



Online (Recorded Video Lectures + Interactive Mentored Learning)



Mentorship from Industry Experts



32 Hands-on Projects



4-Week Pre-Work Course



Dedicated Program Support



Flexible Payment Options



GET THE UT AUSTIN ADVANTAGE

Founded in 1883 and home to more than 52,000 students and 3,000 faculty members, The University of Texas at Austin is one of the leading public universities in the United States. The UT Austin name is globally recognized as a leader in the domains of science, business, technology and social science. With a proven track record of success, cutting-edge research, and teaching methods, you can be confident that you are learning from the best of the best.



IN TOP PUBLIC SCHOOLS, NATIONAL UNIVERSITIES
U.S. NEWS & WORLD REPORT, 2023

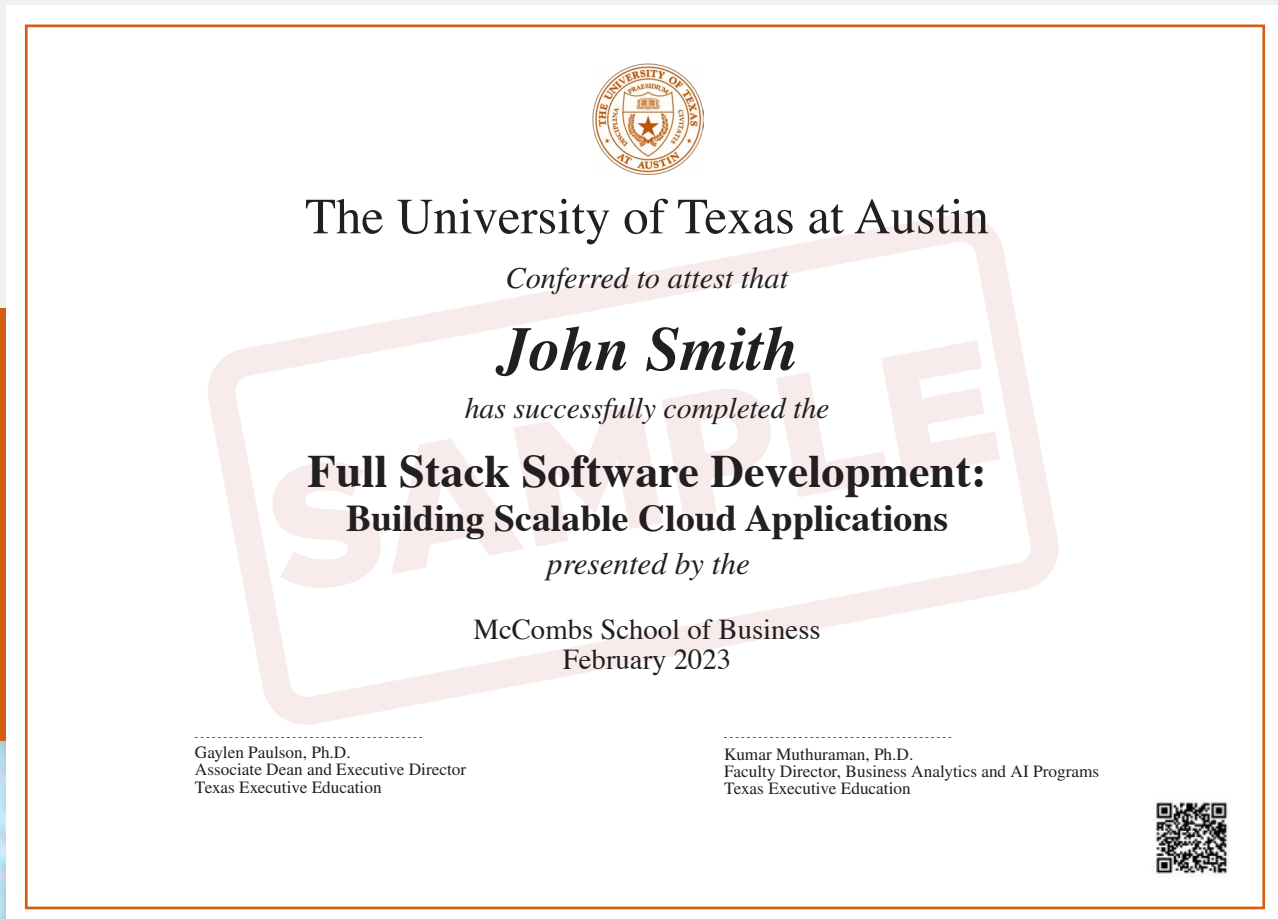


IN CUSTOM PROGRAMS
Financial Times - Executive Education



CERTIFICATE OF COMPLETION

Upon successful completion of the program, you will receive a Professional Certificate in Full Stack Software Development: Building Scalable Cloud Applications from the McCombs School of Business at the University of Texas at Austin.



BUILD WORKING KNOWLEDGE OF SOFTWARE DEVELOPMENT



This comprehensive **28 Weeks Online** helps professionals learn how to **code and master a cutting-edge** programming tool



A learn-by-doing pedagogy taught by renowned faculty with 32 hands-on projects and coding assignments to practice as you learn



Weekly live classes and mentorship sessions ensure that learners walk away confident in their knowledge and skills



Prepare for a career in Full Stack Software Development with **career guidance webinar series and an industry-ready e-portfolio**



WHAT IS UNIQUE ABOUT THIS PROGRAM?



Taught by **globally-recognized UT faculty** and software experts from renowned industries



Hands-on learning with **industry-relevant projects and assignments** that help you build a **job-ready portfolio**



Coding demos and insights from industry practitioners



4-week pre-work course to understand the basic fundamentals of this program



Career support and portfolio building sessions



Certificate from McCombs School of Business at UT Austin and Great Learning

WHO IS THIS PROGRAM FOR?

- Recent graduates who want to build a career in software development.
- Early to mid-career tech professionals who want to scale the career ladder with new-age software skills.
- Freelancers and entrepreneurs who want to break into the coding landscape.

AFTER THIS PROGRAM, YOU CAN:

- Design and develop software solutions for companies
- Outline, create and design code
- Monitor performance and modify programs
- Build software applications using new-age programming languages and tools

LEARN NEW-AGE TOOLS AND LANGUAGES



TOP ROLES YOU CAN QUALIFY FOR

Front-End (UI/UX) Developer

Full Stack Software Developer

Backend Developer

SQA Engineer

GAME Developer

CURRICULUM



PRE-WORK: INTRODUCTION TO PROGRAMMING		4 WEEKS
Introduction to Web Development	Web vs. App Development, Webpage - A Building Block of Web Development, Traditional vs. Modern Web App, Server Side Coding Technologies	
Introduction to MERN Stack	Introduction to Node JS, Express JS, MongoDB, React, Understanding a Basic MERN Application	
Setting up the System	Installation of VS Code, GitHub, MongoDB Compass	

CS FUNDAMENTALS & FRONTEND DEVELOPMENT		13 WEEKS
HTML	Page Structure, Elements, Tags, Input Attributes, HTML5 Tutorial	
CSS	Syntax, Selectors, Specificity, Properties, Layout	
Basics of JavaScript 1	Comments, Data Types, Operators, Branching and Looping in JS, Functions	
Basics of JavaScript 2	IFE, Scope of Variables, Declaring Objects, Working With Objects, JSON Format, Function Call	
DOM Manipulation	Document Object Model, Working With DOM Objects, querySelector, innerHTML, Manipulating CSS, Adding/Removing Classes, Manipulating Attributes, DOM Event Listener	
JavaScript ES6 and OOP	ES6, Let, Const, Destructuring, Rest Operator, Spread Operator, Defining Class in ES6, Inheritance From Class, OOP (Polymorphism, Encapsulation) Using ES6, Iterables, for Each	

Data Structures Using JS	Arrays, Math Functions, String Functions, Data Structure in JS, Time and Space Complexity, Stack, Linear Search and Binary Search
Advanced JavaScript	Hoisting, Prototype, Strict Mode, Try Catch Block, Promises, Ajax, Async Await, Local Storage, Session Storage
JQuery (Self-paced)	Syntax, Selectors, DOM Manipulation, CSS Manipulation, Working With Ajax
ReactJS	Creating React App, JSX, React Components and Props, Styling React Components, React Fragments, React Hooks and Context, Conditional Rendering, React Constructors, React Refs

DATABASES		5 WEEKS
SQL	Relational Database, Querying, Joining Tables, Creating Database and Adding Business Logic, MySQL Tutorial + Normalization	
NoSQL	Introduction to Mongoose DB (Version of MongoDB), Creating Database, Creating Collections, CRUD Operations, Mongoose Schema and Models	

BACKEND DEVELOPMENT		5 WEEKS
NodeJS	Rendering HTML, Working With Files, MVC Pattern, Sessions and Cookies, Authentication and Authorization	
ExpressJS	Routing and HTTP Methods, Middleware, Cookies REST API, Error Handling, Integrating React and Express	
Testing	Unit Test Case - Unit Testing Using Open Source Tools, Browser and System Testing Automation	

CLOUD DEPLOYMENT & DEVOPS		2 WEEKS
Cloud Foundations	AWS Console, IAM, Roles, EC2, Lambda, DocumentDB	
DevOps	IaC, Route53, CF, TF, CloudWatch, Nginx, and PM2(Summary Docs)	

BUILD A JOB-READY PORTFOLIO WITH 32 INDUSTRY-RELEVANT PROJECTS

HTML & CSS | WEBPAGES FOR FOOD ORDER APPLICATION

Build 10+ webpages using HTML for the admin side view of the food ordering application and establish links to the admin dashboard. Additionally, use CSS to enhance the appearance and layout of the web pages.

Skills

- HTML & CSS Syntax
- Responsive Design
- Navigation & Page Linking
- Data Listing & Presentation
- Form Handling

DOM MANIPULATION | BUILD A PORTFOLIO WEBSITE

Create a dynamic & interactive portfolio website using DOM (Document Object Model) manipulation, HTML & CSS.

Skills

- JavaScript Programming
- DOM Manipulation
- Event Handling
- Error Handling
- Element Selection & Modification

JAVASCRIPT ES6 AND OOP | BUILD A FOOTBALL DATABASE APPLICATION

Use concepts of ES6 and OOP (Object-Oriented Programming) to build a football database app that allows users to search and explore information about football clubs and players.

Skills

- Object-Oriented Programming
- Class-Based Architecture
- Iterating Arrays
- Algorithmic Thinking
- User Input Handling
- Data Manipulation & Filtering

DATA STRUCTURES | BUILD AN AUDIO/ VIDEO PLAYER APPLICATION

Build a web-based video player application using array methods and math functions that allows users to play, shuffle, navigate, and search through a collection of videos.

Skills

- Proficiency in Math Functions
- Date Functions & String Functions
- Searching Algorithms
- Sorting Algorithms
- Data Structures

REACT AND REACT REDUX | BUILD A FOOD ORDER APPLICATION (USER SIDE & ADMIN SIDE)

Build the homepage of a food ordering app using React & advanced React concepts in which data can be fetched from third party API. Additionally, learn how to debug the app.

Skills

- React Fundamentals
- React Router
- useContext Hook & Context API
- React-Redux Library
- Debugging Components
- Data Fetching with External APIs

SQL AND MONGODB | DATABASE OPERATIONS FOR FOOD ORDER APPLICATION

Design database and create collections, insert documents and retrieve records from it for a food order application using SQL & MongoDB separately.

Skills

- Database Design
- Data Modeling
- CRUD Operations
- Query Optimization
- Data Retrieval Strategies
- Document-Oriented Database Concepts
- RDBMS

NODE.JS | BACKEND SERVER FOR FOOD ORDER APPLICATION

Create backend servers and various APIs for the food order application using Node.js.

Skills

- Node.js Fundamentals
- Installation & Configuration
- Package Management & Dependency Management (NPM)
- TypeScript Integration
- Debugger Configuration & Usage
- Package Manager - Yarn

EXPRESS.JS | BUILD A BACKEND APPLICATION

Use concepts of Express.js, Mongoose package & Unit Testing to access the MongoDB database from the backend server.

Skills

- Express.js Fundamentals
- Setting Up Scripts & Handlers
- Middleware Function
- Embedded JavaScript Setup
- SPA (Single Page Application)
- SSR (Server-Side Rendering)
- Mongoose Schema & Model
- Unit Testing

Note: The listed projects are samples; the program offers additional diverse projects.

FACULTY AND MENTORS



Dr. Kumar Muthuraman

Faculty Director -
Center for Research
and Analytics



Abhay Samant

Faculty, UT Austin



Nirmallya Mukherjee

Former Chief Architect



Carlos Damiani Paiva

Full Stack Software
Engineer and
Program Mentor



Maxwell Kendall

Senior Full Stack Software
Engineer and
Program Mentor



Vik Williamson

Senior Software
Engineer



Adam Zerner

Software Engineer



Paul Cruse III

Senior Staff
Engineer



LEARNER CAREER TRANSITIONS

 MOSIMA SELOTA	SENIOR MANAGER: BI & ADVANCED ANALYTICS 	DATA SCIENTIST - DATA TECHNOLOGY OFFICER & ENGINEER 
 DANIEL WEBB	SENIOR CONSULTANT & HEAD: BI ANALYTICS 	LEAD CONSULTANT 
 FERNANDO KURI REYES	DATA ANALYST - STRATEGY & PLANNING 	SENIOR DATA ANALYST - STRATEGIC PLANNING 

TESTIMONIALS



"The mentors add immense value to the program. Academics providing background knowledge and real world practitioners providing practical guidance were the best parts of the experience."

Christopher Campbell,
Statistical Consultant, California Casualty Management Company



"As an HR professional aspiring to transition into a tech role, the learning experience was truly enriching. The live classes and additional sessions created an interactive platform that significantly deepened my understanding. Grateful for the comprehensive learning and supportive environment, I highly recommend this program."

Fabiely Estrella,
Human Resource Representative, Textron



"This program offers comprehensive content, covering essential areas from basic web pages to deploying web applications. The up-to-date materials and excellent support were particularly commendable. I highly recommend this program for anyone looking to update their knowledge."

Jesus Alfonso Beltran Galindo,
Co Founder, Shopsi

CAREER SUPPORT

When you choose this program, you also get access to career guidance webinar series by industry experts and e-portfolio.

Gain Insights through an Exclusive Career Guidance Webinar Series



Navigate Your Career Path:
Proven Strategies for a
Targeted Job Search



Interview Success Blueprint:
Ace Technical Questions with
Proven Tips



Cracking the Code: What
Recruiters Seek in the Ideal
Software Developer



Unlock Opportunities:
Your Guide to Building an
Impactful Resume

E-portfolio

An e-portfolio is a snapshot of all the projects done and skills acquired during the program. Get an industry-ready shareable e-portfolio that will help you establish your expertise to potential recruiters.

LEARNING RHYTHM - WEEKLY COMMITMENT OF 16-18 HOURS

- 2-3 hours of live classes and guided labs
- 10-12 hours of practice coding problems and assignments
- 4 hours of optional support sessions (office hours)

PROGRAM FEE

~~\$4999*~~

\$4500*

**Limited Period Offer.*

UPFRONT

Pay in full and get extra
\$300 off

Enroll for \$4200

PAY IN INSTALLMENTS

Divide tuition into easy
installments at 0% APR

Up to 6 installments

LOANS

Apply for easy financing
options with our lending
partners

As low as \$250/month*

**Subject to approval.*

Lending Partners



PayPal



climb

Please get in touch with a Program Advisor for more details.

PROGRAM PARTNERS



Great Learning is a leading global ed-tech company for professional and higher education. It offers comprehensive, industry-relevant programs across various cutting-edge Technology, Data, and Business domains. Great Learning's programs are developed in collaboration with the world's foremost academic institutions. They are constantly reimagined and revamped to address the dynamic needs of the industry. Great Learning is the only ed-tech company to provide these programs in a blended mode, classroom mode, and purely online mode, relying on its vast network of expert mentors and highly qualified faculty to deliver an unmatched learning experience for learners in India and the world over. Great Learning is on a mission to enable transformative learning and career success in the digital economy for professionals and students across the globe and till date, we have impacted over 9.4 million learners from over 170 countries.



READY TO ADVANCE YOUR CAREER?



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APPLY NOW