



PROFESSIONAL CERTIFICATE IN

FULL STACK SOFTWARE DEVELOPMENT: BUILDING SCALABLE CLOUD APPLICATIONS

6 Months | Online | Live Mentorship Sessions | Hands-on Projects

No Prior Programming Experience Required

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



\$122,764

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



2ND

'Software Developer' is ranked #2 as the best technology job role with the highest pay and future growth.

Source: USNews.com

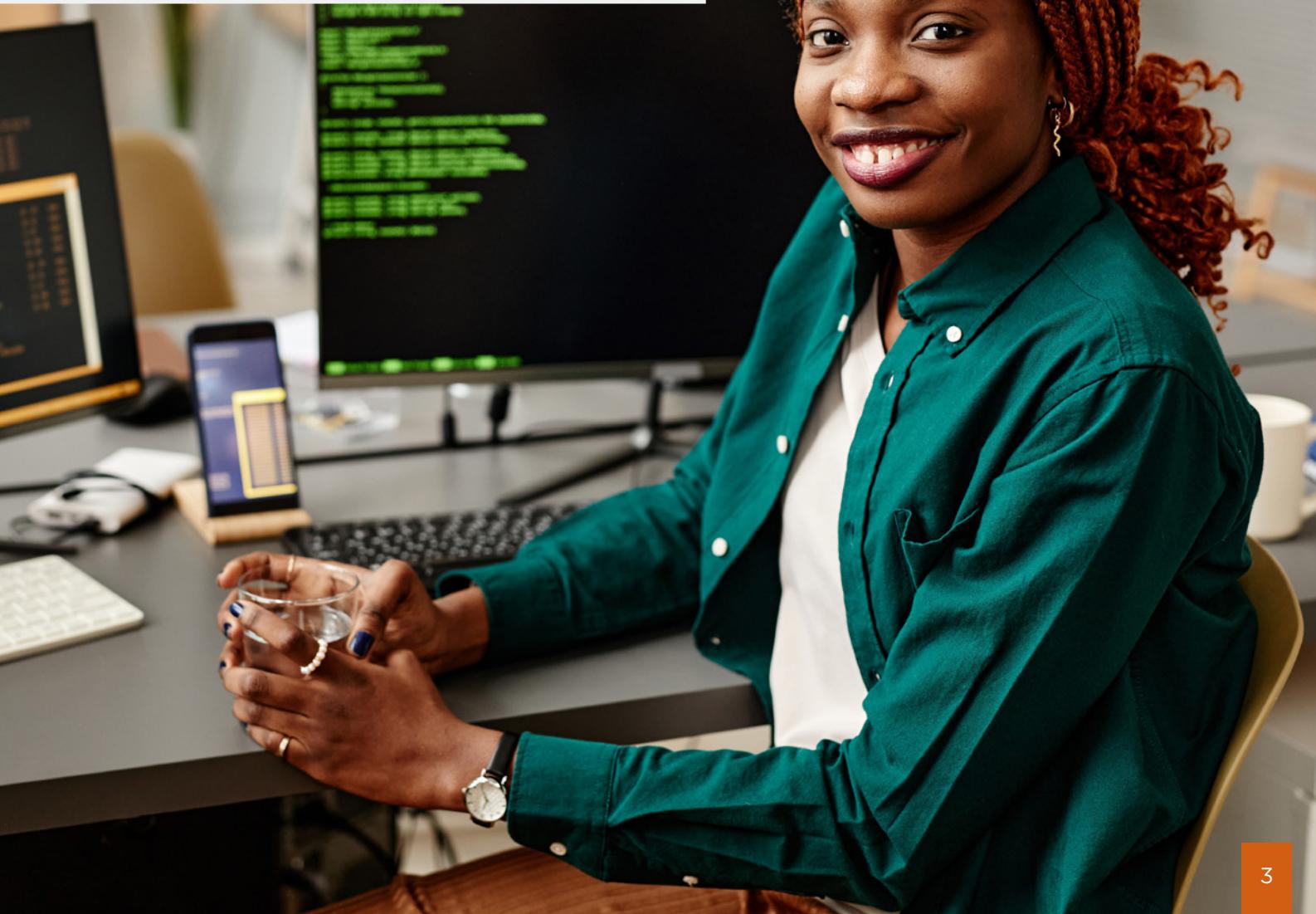


NEW, HIGH-PAYING OPPORTUNITIES IN SOFTWARE

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.





The University of Texas at Austin
McCombs School of Business

GET THE UT AUSTIN ADVANTAGE

Founded in 1883 and home to more than 51,000 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.



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.



The University of Texas at Austin

Conferred to attest that

John Smith

has successfully completed the

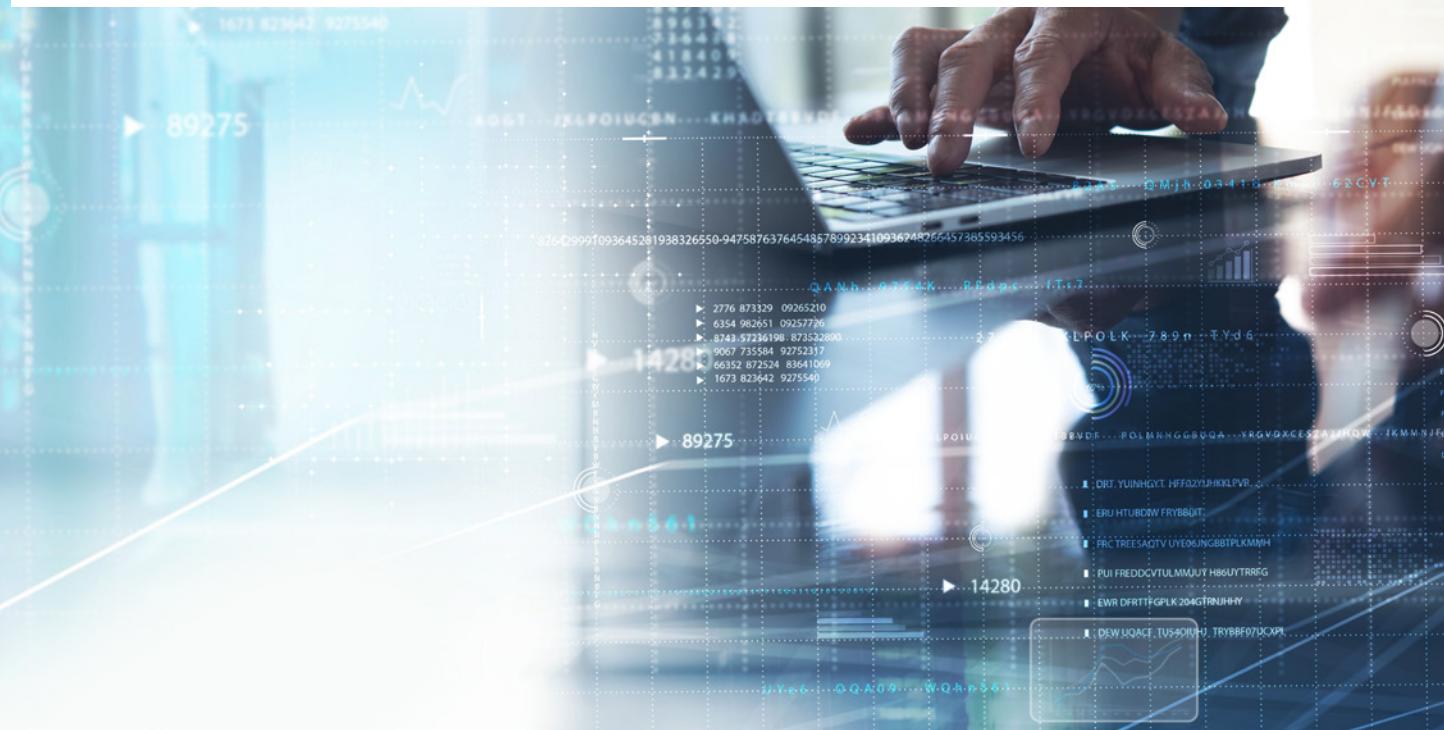
**Full Stack Software Development:
Building Scalable Cloud Applications**

presented by the

McCombs School of Business
February 2023

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Associate Dean and Executive Director
Texas Executive Education

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Faculty Director, Business Analytics and AI Programs
Texas Executive Education



All certificate images are for illustrative purposes only.
The actual certificate may be subject to change at the discretion of the university.

BUILD WORKING KNOWLEDGE OF SOFTWARE DEVELOPMENT



This comprehensive **6-month program** helps professionals learn how to **code and master a cutting-edge** programming tool



A learn-by-doing pedagogy taught by renowned faculty with 20+ 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



Ace coding interviews through resume review, portfolio-building sessions and mock coding tests



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



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



Mock interviews and live coding case studies from top industries



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 | |
| Introduction to Git | Various Operations in Git - Git Init, Git Pull, Git Commit, Git Add, Git Push, Gif Merge, Gif Diff | |
| Setting up the System | Installation of VS Code, GitHub, MongoDB Compass | |

| MODULE 1: 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 | 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 |

| MODULE 2: 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 | |

| MODULE 3: 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 | |

| MODULE 4: CLOUD DEPLOYMENT & DEVOPS - APPROACH 2 | | 3 WEEKS |
|--|--|---------|
| Cloud Foundations | AWS Console, IAM, Roles, EC2, Lambda, DocumentDB | |
| DevOps | Cloud Formations, Terraform, CloudWatch for Logs, Nginx, PM2 as Process Manager | |
| Deployment of MERN App on AWS | Code Deployment Using Code Pipeline and Cloud Formations, Configuring Nginx for Backend and Frontend | |

FACULTY AND MENTORS



Dr. Kumar Muthuraman

Faculty Director -
Center for Research
and Analytics



Dr. Abhinanda Sarkar

PhD - Stanford University
Academic Director -
Great Learning



Nirmallya Mukherjee

Former Chief Architect



**Alejandro José
González Duarte**
Node JS Software
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



"The best part is the mentored sessions and the transformative growth and knowledge exchange that make it unique. The experiential skills gained with guidance from industry practitioners is just what employers require. The case studies used were extremely helpful in applying concepts learned from videos and readings."

Bernard Tumanjong,
Information Systems Engineer, U.S. Army



"I have been amazed by the professional format that Great Learning has offered and how easy it is to navigate through the coursework. I have also been very impressed with the support offered for each student."

Sherene Long,
Data Analyst, USAA

LEARNING RHYTHM - WEEKLY COMMITMENT OF 14-16 HOURS

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

PROGRAM FEE

\$4999*

**Flexible payment plans and limited-time fee waivers available.
Please connect with your program advisor to learn more.*



PROGRAM PARTNERS



The University of Texas at Austin
McCombs School of Business

The University of Texas at Austin's McCombs School of Business (ranked #3 in Business Analytics according to QS Global Rankings 2022) is a premier business school at a world-class public research university. It cultivates principled leaders and develops ideas through high-quality instructions, experiential learning, and the pursuit of relevant, groundbreaking research.



Great Learning, a part of the BYJU'S group, 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 7.4 million learners from over 170 countries.



READY TO ADVANCE YOUR CAREER?



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APPLY NOW