POST GRADUATE PROGRAM IN

ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING: BUSINESS APPLICATIONS

A Program by:

TEXAS McCombs
The University of Texas at Austin
McCombs School of Business

In Collaboration with:

G **Great Learning**
P O W E R   A H E A D

ABOUT **THE PROGRAM**

Hundreds of online courses exist today. What many of them lack, however, is a commitment to helping you translate your knowledge into something tangible - the ability to excel and grow as an AI/ML professional. To tackle this, the PGP-AIML has been designed to give you the academic rigor, learning support, and peer interaction of a full-time course with the flexibility of an online program.

The PGP-AIML uniquely combines a comprehensive curriculum, enabling you to master the basics of programming as well as the most widely used-tools and techniques in the industry, without any prior coding experience. A structured learning journey keeps you on track throughout as you achieve your weekly learning milestones with your mentor and benefit from their rich professional experience.

FORMAT
Online (Recorded Video Lectures + Interactive Mentored Learning)

LEARNING SUPPORT
Dedicated Program Manager + Industry Mentor

Following a learn-by-doing pedagogy, the program offers you the opportunity to apply your skills and knowledge in real-time every week through interactive mentor-led practice sessions, quizzes, assignments, and hands-on projects. As you do so, you come to truly appreciate the nuances of Artificial Intelligence and build your portfolio in the process.

On a whole, the program empowers you with the skills, body of work, and job market insights you need to find the right career opportunities or lead AI and ML teams in your current organisation. All this comes with the credibility, global advantage, and academic leadership of McCombs School of Business at The University of Texas at Austin.

TIME COMMITMENT
8-10 Hours per Week

DURATION
6 Months

PROJECTS
9+ Hands-On Projects

OPTIONAL PROGRAMMING BOOTCAMP
Designed for learners without any prior programming experience

THE UT AUSTIN
ADVANTAGE

Founded in 1883 and home to more than 51,000 students and 3,000 teaching faculty, The University of Texas at Austin is one of the leading public universities in the United States. The UT Austin name is globally recognised 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.

#6

IN BUSINESS ANALYTICS
QS Business Analytics Ranking 2021

Key Facts about Artificial Intelligence and Machine Learning:

- Artificial Intelligence to create 58 million new jobs by 2022.

- The AI industry could be worth more than $15 trillion by 2030.

- AI industry will be generating revenues of $118.6 billion a year by 2025.

- 86% of executives at fast-growing companies say AI is important to their company's success.

Source: WEF (2018), PwC (2019), Statista (2019), Cognizant Report (2018)

THIS PROGRAM IS FOR YOU, IF YOU:

- Aspire to build a technical career in AI and Machine Learning.

- Like solving complex problems in a structured manner.

- Are comfortable in dealing with advanced algorithms.

- No prior programming experience is required.

- Want to build AI/ML solutions integrated into tech infrastructures.

- Wish to learn advanced AI, ML, and Deep Learning techniques and their applications.

OVERALL, THE PROGRAM WILL HELP YOU:

- Lead the implementation of AI in your current role or company.

- Transition to a tech career in AI and Machine Learning.
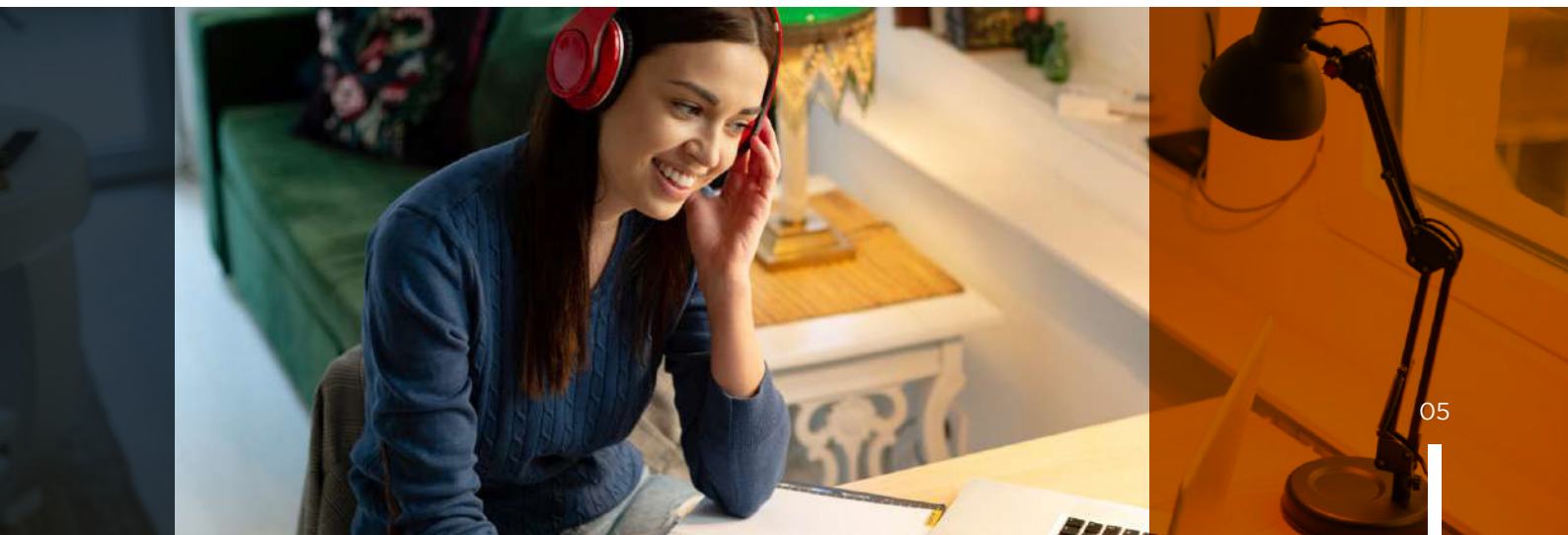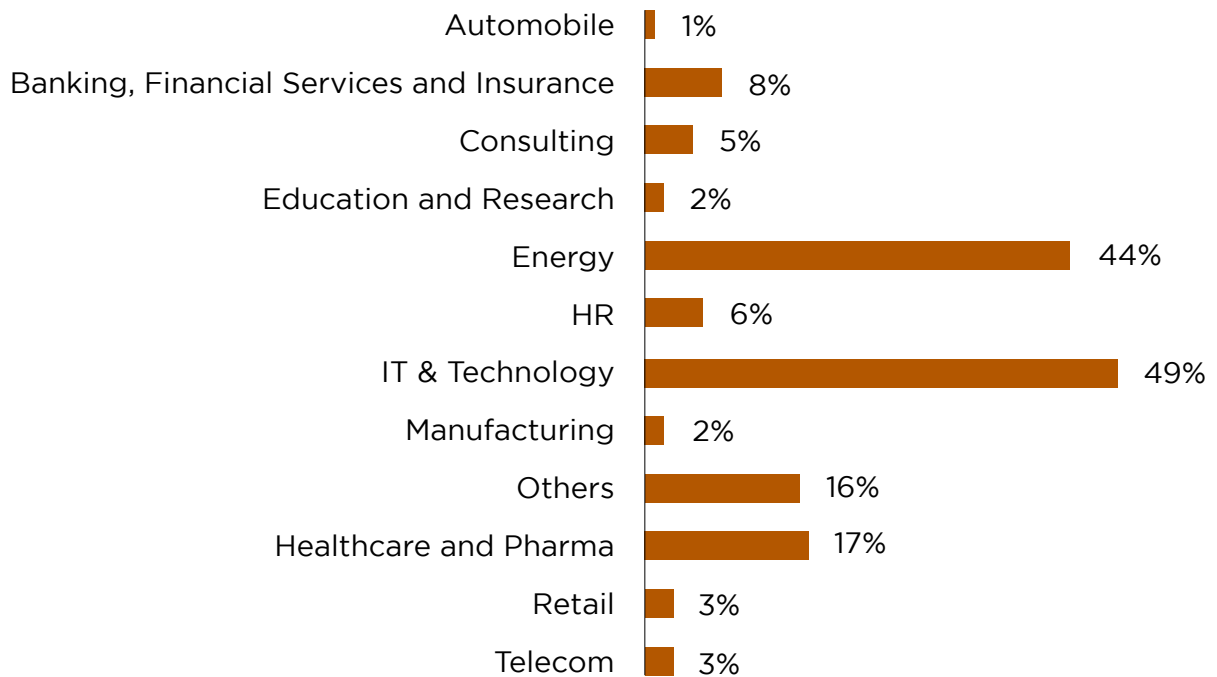
CERTIFICATE

Showcase your competence with a Certificate of Completion from The University of Texas at Austin.
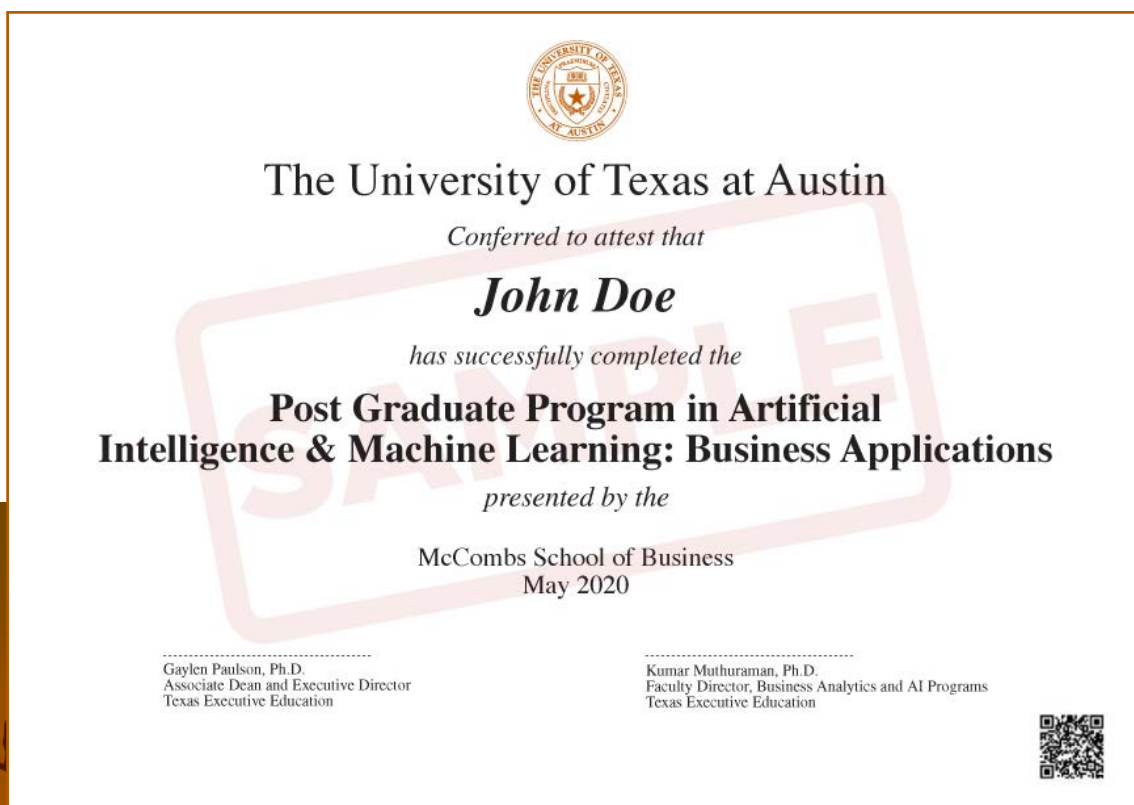
PAST **LEARNER PROFILES**

Each of the cohorts represent a diverse mix of work experience, industries, and geographies - guaranteeing a truly global and eclectic learning experience. Below is an indicative mix of where past learners have come from.

5%	14%	30%	20%	31%
0-2 Years	2-5 Years	5-12 Years	12-15 Years	>15 Years

Industry	Percentage
Automobile	1%
Banking, Financial Services and Insurance	8%
Consulting	5%
Education and Research	2%
Energy	44%
HR	6%
IT & Technology	49%
Manufacturing	2%
Others	16%
Healthcare and Pharma	17%
Retail	3%
Telecom	3%

KEY **LEARNING OUTCOMES**

- Build your expertise in the most widely-used AI & ML tools and technologies.

- Acquire the ability to independently solve business problems using AI & ML.

- Master the skills needed to build Machine Learning and Deep Learning models.

- Develop know-how of the applications of AI in areas such as Computer Vision and NLP.

- Understand the possibilities and implications of AI in different industries.

- Build a substantial body of work and an industry-ready portfolio in AI & ML.

"

"The program gave me fair coverage in terms of both breadth and depth of AI & ML in 6 months. The hands-on projects, mentored learning sessions by industry experts give you a holistic learning path. Add the personal attention from the Program Manager and it doubles your progress. Truly a Great Learning experience!"

- Sujoy Joy, Module & Process Owner,
  Nielsen, USA

"The AIML program has been comprehensive in key concepts. The video lectures were detailed and the projects and quizzes challenged us to work through real-life applications. I would recommend this program to professionals wanting to learn more about AIML, as I have applied my learnings and tools in my career to solve client problems."

- Steve Carr, Project Manager
  enVista, USA

"Overall, I enjoyed the program and learned a lot. I learnt the most in the projects and mentor learning sessions. It hammered in the process of approaching AIML problems. The next best thing is the breadth and range of topics as well as working on patents for using or implementing AI."

- Eric Taylor, Design Engineer
  Arteris IP, USA

COURSE **CURRICULUM**

OPTIONAL MODULE | **PROGRAMMING BOOTCAMP**

The 4-week Programming Bootcamp serves as a stepping stone for PGP-AIML. It enables learners with no prior programming experience to spend an additional month learning the basics and foundations of coding, at no extra cost.

The Bootcamp Helps You To:

- Understand how the building blocks of a programming language work
- Write code in Python
- Perform computational tasks on data using Python
- Learn the key programming concepts used to solve artificial intelligence problems

CLICK HERE FOR MORE DETAILS

MODULE 1 | **FUNDAMENTALS OF AIML**

Python is an essential programming language in the tool-kit of an AI & ML professional. In this course, you will learn the essentials of Python and its packages for Data Analysis and computing, including NumPy, SciPy, Pandas, Seaborn and Matplotlib.

Sample Project 1

Perform Exploratory Data Analysis to understand the popularity trends of movie genres and to figure out patterns in movie viewership.

MODULE 2 | **SUPERVISED LEARNING**

The aim of Supervised Machine Learning is to build a model that makes predictions based on evidence in the presence of uncertainty. In this course, you will learn about Supervised Learning algorithms of Linear Regression and Logistic Regression.

Sample Project 2

Build a model that will help to identify the customers of a bank who have a higher probability of purchasing a loan.

MODULE 3 ENSEMBLE TECHNIQUES

Ensemble methods help to improve the predictive performance of Machine Learning models. In this course, you will learn about different Ensemble methods that combine several Machine Learning techniques into one predictive model in order to decrease variance, bias or improve predictions.

Sample Project 3

Build a model that will help the marketing team of a company to identify potential customers for a term deposit subscription.

MODULE 4 FEATURE ENGINEERING, MODEL SELECTION AND TUNING

Model building is an iterative process. Employing Feature Engineering techniques along with a careful model selection exercise helps to improve the model. Further, tuning the model is an important step to arrive at the best possible result. This module talks about the steps and processes around the same.

Sample Project 4

Perform Feature Engineering and Model Tuning on a model designed to predict the strength of construction materials to enhance accuracy.

MODULE 5 UNSUPERVISED LEARNING

Unsupervised Learning finds hidden patterns or intrinsic structures in data. In this course, you will learn about commonly-used clustering techniques like K-Means Clustering and Hierarchical Clustering along with Dimension Reduction techniques like Principal Component Analysis.

Sample Project 5

Identify different segments from a bank's existing customer pool based on their spending patterns as well as past interactions with the bank.

MODULE 6 — NEURAL NETWORKS

Deep Learning carries out the Machine Learning process using an 'Artificial Neural Net', which is composed of a number of levels arranged in a hierarchy. In this course, you will learn about the basic building blocks of Artificial Neural Networks. You'll learn how Deep Learning Networks can be successfully applied to data for knowledge discovery, knowledge application, and knowledge-based prediction.

Sample Project 6

Build an Image Classification model to classify street view house numbers using Neural Networks.

MODULE 7 — COMPUTER VISION

The module will reflect on the ability of a computer system to see and make sense of visuals using CNN (Convolutional Neural Network). It will enable you to efficiently handle image data for the purpose of feeding into CNNs.

Sample Project 7

Build a Convolutional Neural Network from scratch to classify images into their respective categories.

MODULE 8 — NATURAL LANGUAGE PROCESSING

This module talks about yet another interesting implementation of Neural Networks that revolves around equipping computers to understand human language. You will learn to understand sentiments from texts.

Sample Project 8

Detect sentiment from headlines/reviews using the different textual analysis techniques and sentiment analysis.

SELF-PACED MODULES

MODULE 9 | **STATISTICAL LEARNING**

Statistical Learning is a branch of applied statistics that deals with Machine Learning, emphasizing statistical models and assessment of uncertainty. This course on statistics will work as a foundation for the Artificial Intelligence and Machine Learning concepts learnt in this program.

Sample Project 9

Dive deep into an insurance company dataset to find valuable insights on customer profiles based on several statistical tests.

MODULE 10 | **RECOMMENDATION SYSTEMS**

A large number of companies use recommender systems, which are software that select products to recommend to individual customers. In this course, you will learn how to produce successful recommender systems that use past product purchase and satisfaction data to make high-quality personalized recommendations.

Sample Project 10

Build your own recommendation system for products on an e-commerce website.

MODULE 11 | **MODEL DEPLOYMENT**

In this module, we will be talking about the model deployment techniques and techniques around making your model scalable, robust and reproducible.

Please get in touch with a Program Advisor for a detailed module-wise breakdown of the course curriculum.

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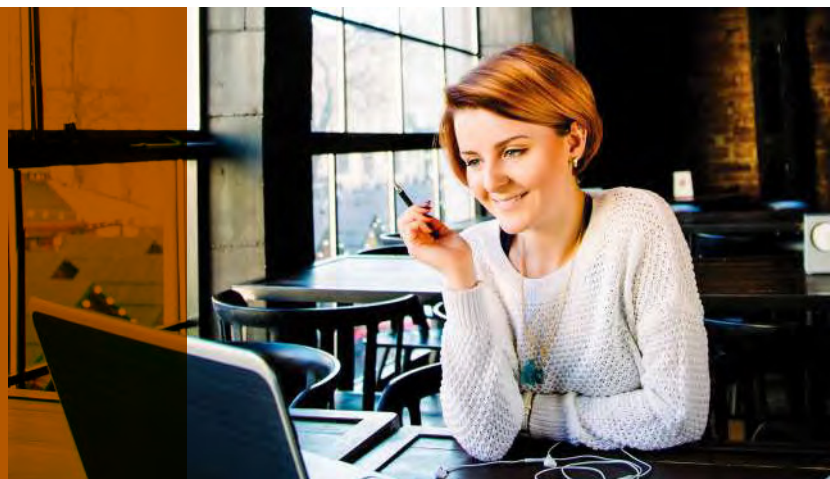
A STRUCTURED
LEARNING JOURNEY

View & Learn Recorded Content
Consume recorded video lectures by UT Austin faculty & industry experts over the week.

Engage in a Mentor Session
Clarify your doubts and practice on live data-sets with your mentor on the weekend.

Complete a Hands-On Project
Work on a real-world problem to apply concepts and techniques learnt in the module.

Participate in Webinars by UT Austin
Get an insiders' perspective into the industry through webinars with leading UT Austin faculty every month.

PROGRAM MANAGER: YOUR PERSONAL GUIDE

Your Program Manager is your single point of contact for all academic and non-academic queries. Whether you are stuck on a topic or get a sudden request for work travel, the Program Manager will hand-hold and guide you through all situations, leaving no query unanswered. They will also keep a track of your learning journey and will give you personalized feedback and required nudges to ensure your success.

LEARN FROM THE **BEST OF ACADEMIA**

The program is taught by academic experts in the fields of Artifcial Intelligence and Machine Learning. The faculty's vast experience with research as well as theory in the domains of AI and Machine Learning will be a crucial part of the learning journey that is aimed at inspiring a love for data in you and making you industry-ready.

FACULTY PROFILES

DR. KUMAR MUTHURAMAN
Faculty Director, Center for Research and Analytics, McCombs School of Business, The University of Texas at Austin. H. Timothy (Tim) Harkins Centennial Professor.
M.S & Ph.D., Stanford University.

DR. ABHINANDA SARKAR
Academic Director, Great Learning.
B.Stat & M.Stat, Indian Statistical Institute.
Ph.D., Stanford University.

PROF. MUKESH RAO
Consultant, Big Data & Machine Learning.

DR. AMIT SETHI
Faculty, Image Processing and Machine Learning. B.Tech, IIT Delhi.
M.S and Ph.D., University of Illinois at Urbana-Champaign.

DR. DAN MITCHELL
Assistant Professor, McCombs School of Business.
Ph.D., The University of Texas at Austin.

DR. SUNIL KUMAR
GM - Engineering Innovation.
Ph.D. in Computer Science.

BECOME INDUSTRY-READY
WITH **LIVE MENTORSHIP**

Along with strong theoretical foundations, hands-on learning goes a long way in preparing you to make data-driven decisions regarding business problems. As you work on real-life projects, you will receive personalized live mentorship every weekend from industry experts in AI and Machine Learning.

MENTOR PROFILES

EVANS OTALOR
Data Science Consultant
Sterling

DIANA PHOLO
Data Scientist
Predictive Insights

RAM THILAK PREM KUMAR
Data Scientist
Mercedes-Benz

AMARJEET SAHOO
Lead-Data Science, Pricing
& Promotional Strategy, **JC Penny**

GOKUL KRISHNAA
Machine Learning Developer
SAP

HELGE REIKERÅS
Data Scientist
Offer Zen

Translate Your Learnings Into Practical Applications

○ 28+ live mentorship sessions focused on doubt-resolution and case-study based practice

○ Collaborative yet personalized learning in small groups of up to 15 learners

○ Network with peers from different geographies and domains

○ Work on 9+ projects under the guidance of industry experts

○ Hands-on learning with AI practitioners from leading organizations such as, Microsoft, SAP, Verizon, IBM among others

To access more details on the mentored learning model, please get in touch with a Program Advisor at **aiml.utaustin@mygreatlearning.com**

CAREER
SUPPORT

When you are beginning afresh in a field, insights from someone on the inside can help you get a headstart.

Apart from the immediate result of landing a job, career coaches work with you on the long haul – building your strengths, working on gaps, and developing a strategy to achieve your career goals.

OUR ALUMNI WORK AT

Google

BARCLAYS

BOEING

accenture

IBM

EY Building a better working world

amazon.com

Deloitte.

citigroup

Microsoft

Deutsche Bank

nielsen

PayPal

Walmart

and many more...

LAND YOUR DREAM JOB WITH:

1:1 CAREER SESSIONS
Interact personally with industry professionals to get valuable insights and guidance.

RESUME & LINKEDIN PROFILE REVIEW
Present yourself in the best light through assets that truly showcase your strengths.

INTERVIEW PREPARATION
Get an insiders' perspective to understand what recruiters look for.

E-PORTFOLIO
Build an industry-ready portfolio to showcase your mastery of skills and tools.

ADMISSION
PROCESS

ELIGIBILITY

- Bachelor's or Undergraduate degree with at least 50% aggregate marks or equivalent.
- No prior programming experience is needed.

APPLICATION PROCESS

Application Form

Register by filling up the online application form. The program follows a rolling process, so we encourage you to apply early.

Shortlisting and Panel Review

A panel will review your application to determine your fit with the program. They will evaluate you on your academic performance, work experience, and motivation.

Interview/Screening

If shortlisted, you will go through a telephonic screening interview (This may be waived for candidates with strong profiles and experience).

Admissions Offer

After a final admissions committee review, you will receive an offer for a seat in the upcoming cohort of the program.

PROGRAM FEE

USD $3,500

Please get in touch with a Program Advisor for more details on flexible fee payments
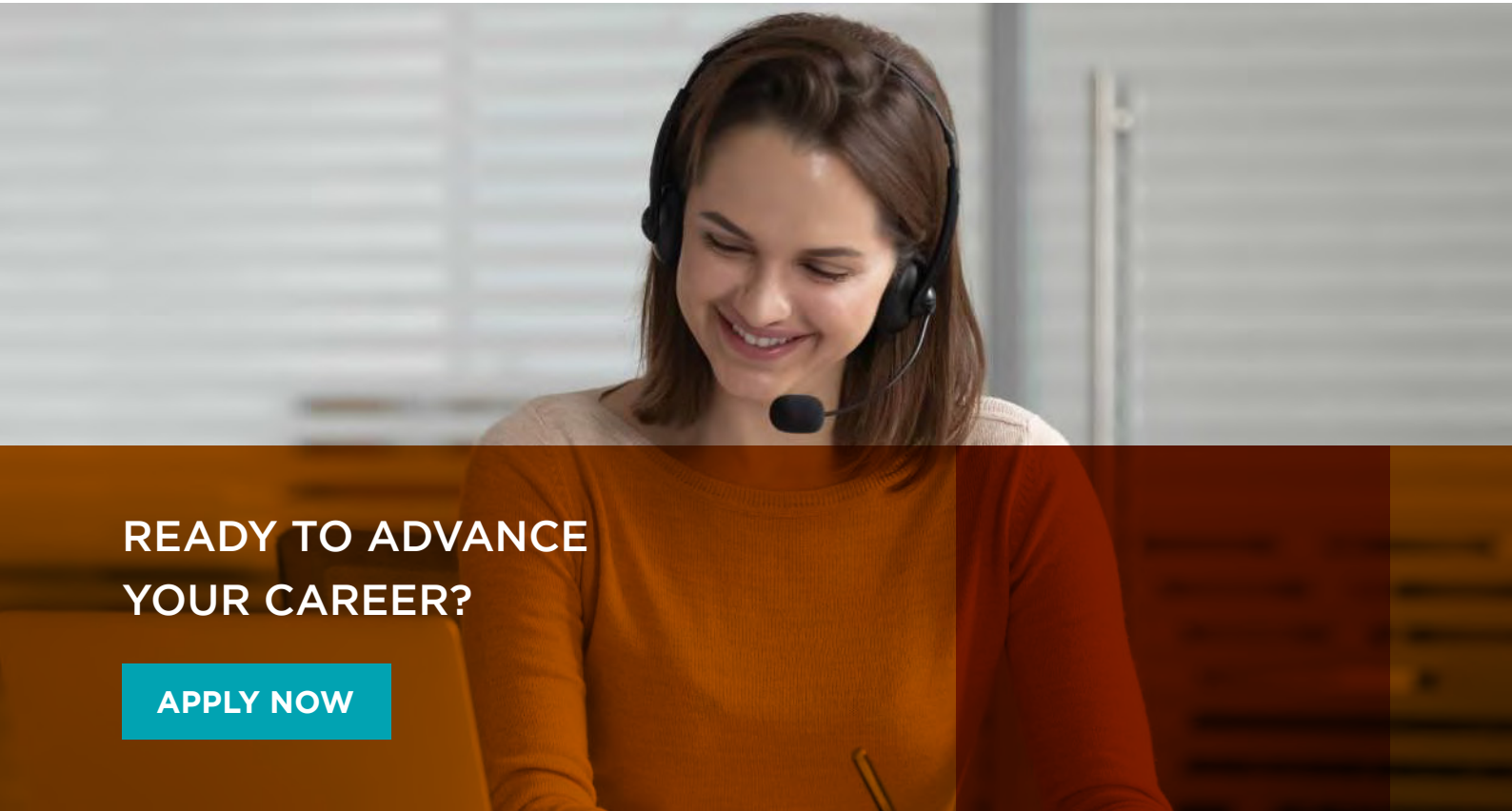
PROGRAM
PARTNER

The McCombs School of Business at The University of Texas at Austin is collaborating with Great Learning to deliver this program in Artificial Intelligence and Machine Learning: Business Applications to learners from around the world.

Great Learning is one of the leading ed-tech platforms for professional and higher education. It offers comprehensive, industry-relevant programs in Software Engineering, Business Management, Business Analytics, Data Science, Machine Learning, Artificial Intelligence, Cloud Computing, Cyber Security, Digital Marketing, Design Thinking, and more.

- **4 MILLION+ LEARNERS**
- **4600+ INDUSTRY EXPERT MENTORS**
- **160+ COUNTRIES**
- **6200 COMPANIES HIRE FROM US***
  *including jobs on Superset, a part of Great Learning
- **BEST ED-TECH COMPANY OF THE YEAR***
  *EdTech Review Awards 2020
- **BEST ONLINE SKILLS PROVIDER***
  *Education Innovation Awards 2022

Great Learning's programs are developed in collaboration with the world's foremost academic institutions like Stanford University, the University of Texas at Austin, MIT Professional Education, MIT Institute for Data, Systems, and Society (IDSS), Northwestern University, and many more. The programs are constantly reimagined and revamped to address the dynamic needs of the industry.

Having impacted 4 million+ learners from over 160+ countries, Great Learning is on a mission to enable transformative learning and career success in the digital economy for professionals and students across the globe.

READY TO ADVANCE
YOUR CAREER?

APPLY NOW

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+1 512 861 6570

aiml.utaustin@mygreatlearning.com

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