



POST GRADUATE PROGRAM IN

ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

Delivered in collaboration with: **greatlearning**
Learning for Life

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 rigour, learning support, and peer interaction of a full-time course with the flexibility of an online program.

The program uniquely combines a comprehensive curriculum, covering the most widely-used tools and techniques in the industry, with a hands-on learning approach. 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.

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 data 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 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.



Format

Online (Recorded Video Lectures
+ Interactive Mentored Learning)



Duration

6 Months



Time Commitment

5-7 hours per week



Learning Support

Dedicated Program
Manager + Industry Mentor



Projects

10 Projects

The UT Austin Advantage



IN ARTIFICIAL INTELLIGENCE
AND MACHINE LEARNING

U.S. News and World Report Rankings, 2018

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.

This is especially true for Artificial Intelligence, where it is ranked at #8 in the world (U.S. News and World Report Rankings, 2018), and Business Analytics (ranked #2 worldwide by QS World University Rankings, 2018).

With a proven track record of successes, cutting-edge research and teaching methods, you can be confident that you are learning from the best of the best.

Key Facts about Artificial Intelligence and Machine Learning:

- **Between 2015 and 2018, the number of job postings with "AI" or "Machine Learning" increased by nearly 100%.**

Indeed, 2018

- **AI was among the top 5 in-demand hard skills in 2019.**

LinkedIn, 2019

- **The global machine learning market is expected to grow from USD 1.41 billion in 2017 to USD 8.81 billion by 2022.**

Research and Markets Report, 2017

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

Cognizant Report, 2018

Showcase Your Competence with a UT Austin Certificate



Who is the program for?

The program is for you if, you:

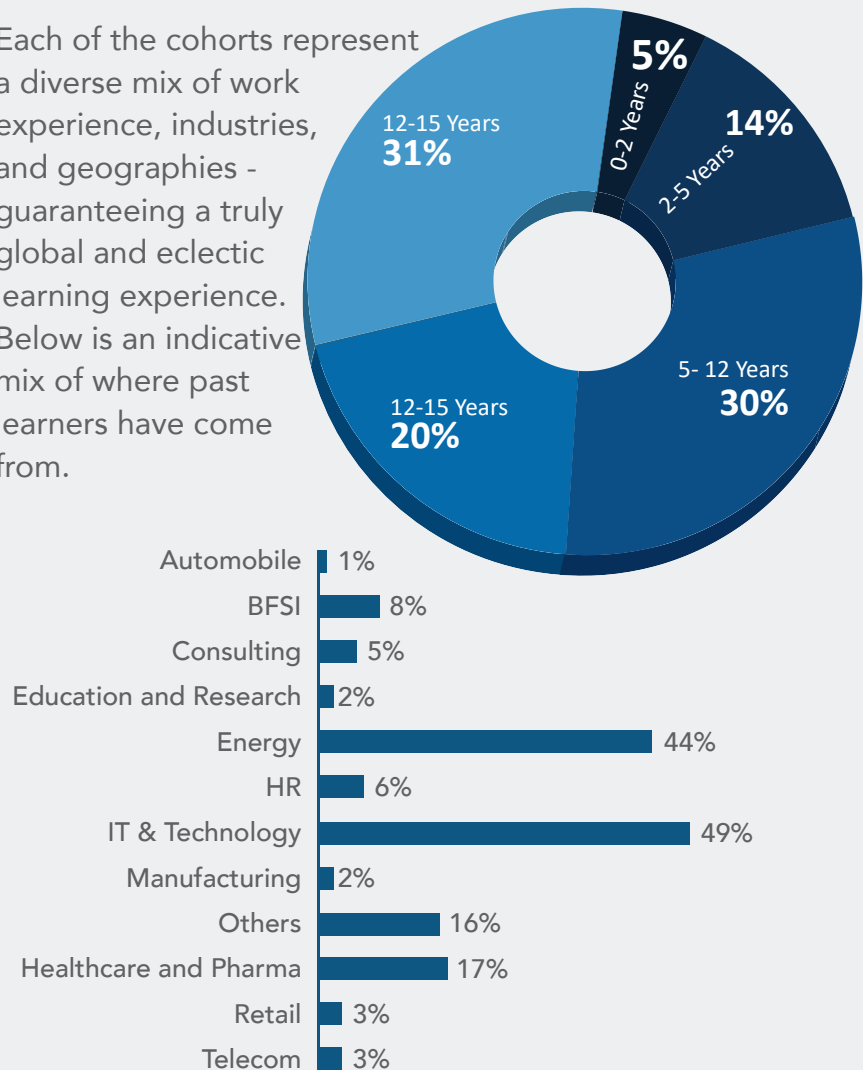
- Aspire to build a technical career in AI and Machine Learning.
- Like solving complex problems in a structured manner.
- Are comfortable in dealing with advanced algorithms.
- Have prior programming experience and want to learn Python.
- Want to build AI/ML solutions integrated into tech infrastructures.
- 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.

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.



- ★ "AI and Machine Learning are not only hot topics of today, but will be essential for solving almost every problem in the (not so far) future. I would like to be part of finding new areas where AI and ML can help improve the lives of everyone." - **Nargess Ghahremani Azghandi**
- ★ "I have been leading a team of Data scientists to build predictive models and Text mining. I would like to refresh my Data science knowledge and upgrade with machine learning capabilities with modern ML languages and frameworks." - **Ram**
- ★ "As a Security architect, I would like to use AI and ML techniques to build efficient security tools and services that could benefit many domains in the industry." - **Arun P**

The Best of Industry and Academia

The program brings together the best academicians and industry experts to give you a practical understanding of core concepts. While varied in their experiences, they are all motivated by the common goal of inspiring a love for AI and Machine Learning in you.

Faculty Profiles



Dr. Kumar Muthuraman

University Distinguished Teaching Professor - McCombs School of Business, University of Texas at Austin Director, Center for Research and Analytics, H. Timothy (Tim) Harkins Centennial Professor, University Ph.D. - Stanford University



Dr. Abhinanda Sarkar

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



Dr. Arjun Jain

Faculty, Deep Learning and Computer Vision. Ph.D., Max Planck Institute, Germany. Post Doctoral - New York University



Dr. Amit Sethi

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

Mentor Profiles



Gokul Krishnaa

Machine Learning Developer



Helge Reikerås

Data Scientist



Ram Thilak Prem Kumar

Data Scientist



Amarjeet Sahoo

Lead-Data Science, Pricing & Promotional Strategy



Course Curriculum

MODULE 1

Python for AI

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 identify the impact of various attributes on the diabetes rates of the Pima Indians.

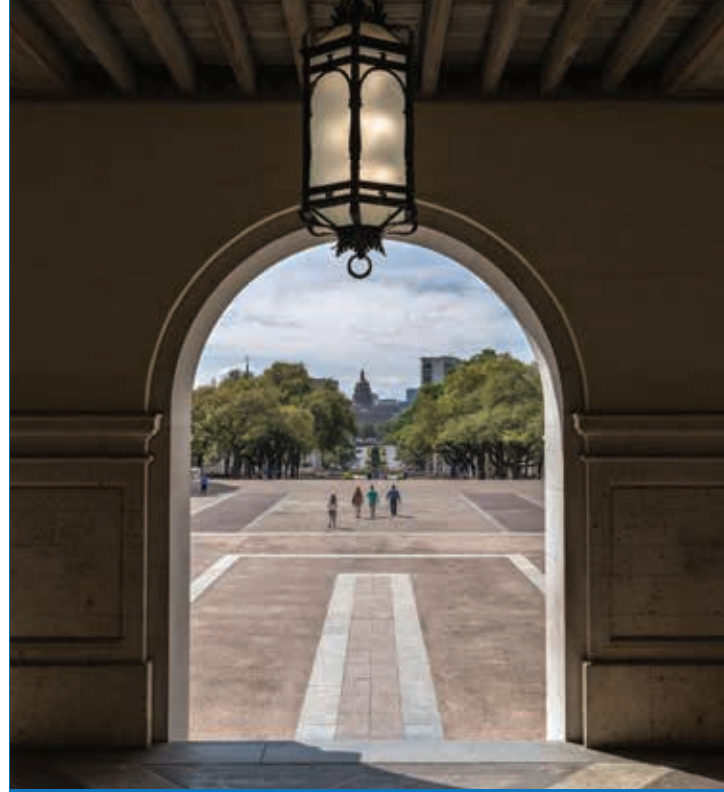
MODULE 2

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 the different algorithms of supervised learning such as Linear Regression, Logistics Regression and Decision Trees.

Sample Project 2

Build a model that helps to identify potential customers of a bank who have a higher probability of purchasing a loan.



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 & 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.

Course Curriculum

MODULE 3

Ensemble Techniques and Model Tuning

Ensemble methods and model tuning 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 (bagging), bias (boosting), or improve predictions (stacking).

Sample Project 3

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

Sample Project 4

Perform feature engineering on models designed to predict the strength of construction material and reach the desired accuracy.

MODULE 4

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:

Build a model to classify given silhouette images into one of 3 types of automotive vehicles.



MODULE 5

Deep Learning

Deep learning carries out the machine learning process using an artificial neural net that is composed of a number of levels arranged in a hierarchy. In this course, 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.

Sample Project 7

Classify faces from different images and videos into known and unknown identities using Computer Vision frameworks.

Sample Project 8

Detect fake news by performing stance detection using deep neural architectures on different news stories.

MODULE 6

Self-Paced: 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:

Deep dive deep into an insurance company data set to find valuable insights on customer profiles based on several statistical tests.

MODULE 7

Self-Paced: 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.

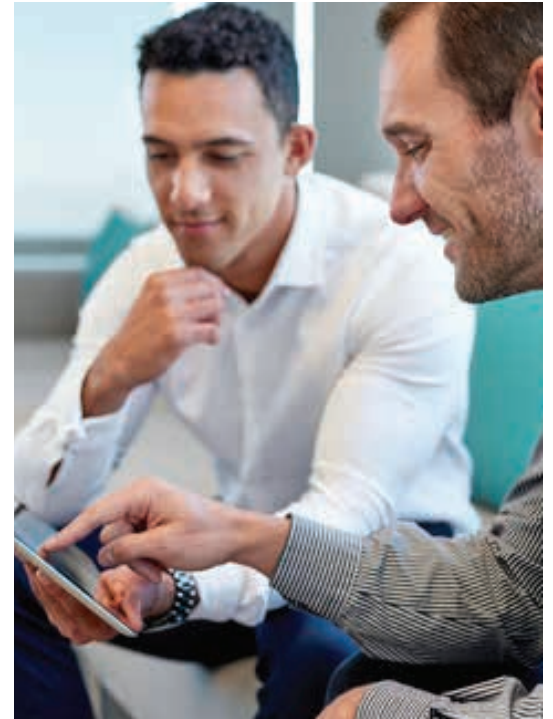
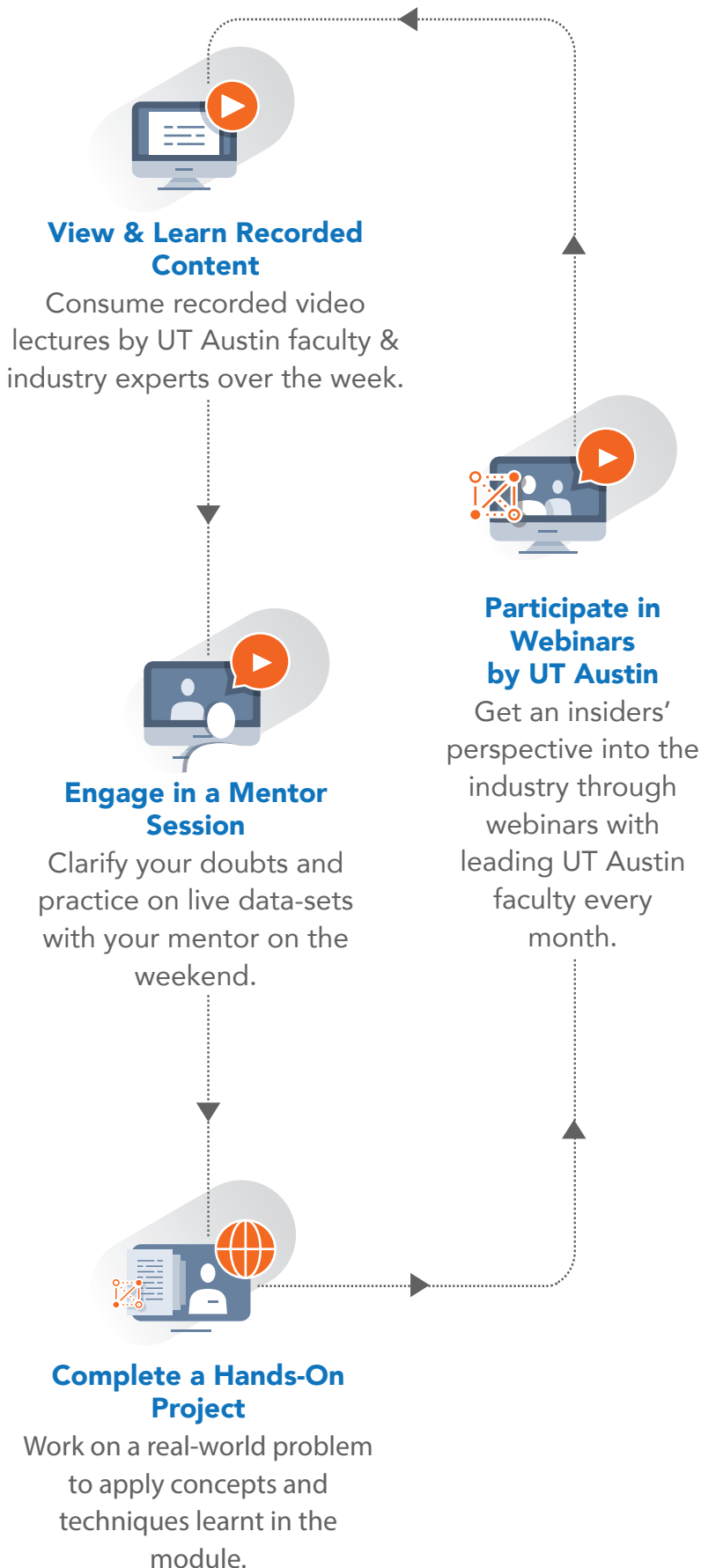
**Note - All Self-paced modules have end-module projects but do not consist of mentor-led sessions.*



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

aiml.utaustin@greatlearning.in

A Structured Learning Journey



Program Manager: Your Personal Cheerleader

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. They will also keep a track of your learning journey and will give you feedback and required nudges to ensure your success.

Advance Your Career with Comprehensive 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.

Land your dream job with:



1-on-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.



Our Alumni Work at:



and many more...

Admissions Process

To be eligible, you should possess a bachelor's or undergraduate degree with at least 50% aggregate marks or equivalent. Prior programming experience is preferred.



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 Partner

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



Great Learning is an ed-tech platform with a mission to enable career success for professionals in the digital economy. It offers industry-relevant programs across a wide set of domains, with over 12,000+ learners from 50+ countries.

Ready to Advance Your Career?

Apply Now

Speak to a Program Advisor

Have questions about the program or how it fits in with your career goals?

+1 512 647 2647



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