

Machine Learning机器学习

Course Outline课程大纲



Mans International

Connect.Share.Grow

What We Do 我们做什么

Mans International offers comprehensive Artificial Intelligence and Data Science training with real world practical projects and use cases. Mans International 提供最全面的人工智能和数据科学培训, 并结合实际项目和案例教学。

Professionals 专业人士

We equip you with hands on experience and job competency with job opportunities. 我们让您具备实际操作经验和职业技能, 并推荐工作机会。

Enterprises 企业

We are a one-stop centre to solve all your problems in hiring appropriate candidates, improve job competency for your current employees, and solve your project challenges in the AI and Data Science field. 我们是一站式中心, 可以解决您在聘用合适人选, 提高现有员工的工作能力, 解决您在 AI和数据科学领域的项目挑战。

Why Machine learning 为什么学机器学习

The machine learning market size is expected to grow from USD 1.03 Billion in 2016 to USD 8.81 Billion by 2022, at a Compound Annual Growth Rate (CAGR) of 44.1% during the forecast period.

机器学习市场规模预计将从2016年的10.3亿美元增长到2022年的88.1亿美元, 预测期间复合年增长率(CAGR)为44.1%.



— DEMAND FOR —
**MACHINE LEARNING
ENGINEERS WILL SOAR
60% BY 2020**



Companies that hire Machine Learning Engineers -



Machine learning 机器学习

A form of artificial intelligence, machine learning is revolutionizing the world of computing as well as all people's digital interactions. By making it possible to quickly, cheaply and automatically process and analyze huge volumes of complex data, machine learning is critical to countless new and future applications.

Machine learning powers such innovative automated technologies as recommendation engines, facial recognition, fraud protection and even self-driving cars. 机器学习是人工智能的一种形式，它正在革新计算世界以及所有人的数字互动。通过使快速，便宜和自动处理和分析大量复杂数据成为可能，机器学习对于无数新的和未来的应用至关重要。机器学习被用于推荐引擎，面部识别，欺诈保护甚至自动驾驶汽车等创新自动化技术。

Course Objective 课程目标

Our course prepares professionals with computer science and mathematics knowledge with hands-on skills required for certification and job competency in machine learning. 我们的课程为具备计算机科学和数学知识的专业人士提供机器学习认证和工作能力所需的实践技能。

The demand for machine learning skills is growing quickly. The median salary of a Machine Learning Engineer is \$134,293 (USD), according to [payscale.com](https://www.payscale.com). 机器学习技能的需求正在迅速增长。据payscale.com调查, 机器学习工程师的平均工资是\$134,293(美元)。

Who Should Take This Course 学习对象

- Developers aspiring to be a data scientist or machine learning engineer 开发人员有志成为数据科学家或机器学习工程师
- Business analysts who want to understand data science techniques 想了解数据科学技术的商业分析师
- Information architects who want to gain expertise in machine learning algorithms 希望获得机器学习算法专业知识的信息架构师
- Undergraduates looking to build a career in data science and machine learning 大学毕业生希望建立一个数据科学和机器学习的职业生涯
- Experienced professionals who have computer science and mathematics knowledge would like to harness machine learning in their fields to get more insights 有经验的专业人士, 有计算机科学和数学知识, 想要在他们的领域利用机器学习来获得更多的见解

Skills learned 学到的技能

Comprehend the theoretical concepts such as supervised learning, unsupervised learning, and reinforcement learning and how they relate to the practical aspects of machine learning. 理解监督学习, 无监督学习, 强化学习等理论概念, 以及它们与机器学习在实际应用方面的关系。

Gain practical mastery over principles, algorithms, and applications of machine learning through a hands-on approach which includes working on practical projects. 通过实际操作的方法获得对机器学习的原理, 算法和应用的实用掌握, 其中包括参与实战项目。

High performers will have a chance to attend Kaggle competition, and join our ML team, or our affiliated companies. 成绩优秀者有机会参加Kaggle比赛, 加入我们的机器学习团队, 或者和我们有关的公司。

General Course Outline 课程大纲

Module 1: Introduction to Artificial Intelligence and Machine Learning

人工智能和机器学习介绍

Module 2: Supervised Learning 监督学习

Module 3: Regression 回归分析

Module 4: Neural Networks 神经网络

Module 5: Computer Vision 计算机视觉

Module 6: Deep Learning 深度学习

Module 7: Unsupervised Learning 无监督学习

Module 8: Reinforcement Learning 强化学习



General Course Outline 课程大纲II

Module 9: Data Science with Python Python用于数据科学

Module 10: Real Project - Classification & Computer Vision (Construction site smart management use case) 实战演练 - 分类和计算机视觉 (建筑工地智能管理案例)

Module 11: Real Project - Personalized Recommendation (C2M:Consumer to ManUFACTORY use case and fashion industry use case) 实战演练 - 个性化推荐 (大规模反向定制: 消费者到厂家案例和时尚行业案例)

Module 12: Real Project - Text Semantic Recognition (Education chatbot use case) 实战演练 - 文本语义分析 (教育聊天机器人案例)

Module 13: Integrated Projects 综合项目演练

Module 14: Final Project 期末项目



What You will Get 你能得到什么

- Comprehensive and solid understanding of the key concepts of machine learning 机器学习领域概念的全面掌握和扎实的功底 (There will be an exam after each module to decide whether you can continue the study 每个模块结束后需要经过考试来决定是否可以参加下一模块的学习)
- Hands-on experience with real project practices 通过真实项目培养实际操作能力
- Certification once pass the exam 考试合格可以获得证书
- A recommendation letter from top North American AI scientists for top students 成绩优异学员可获得北美顶尖人工智能科学家的推荐信
- A chance to join our star team for top students 成绩优异学员有机会加入我们的明星团队
- Job opportunities 工作机会
- Project contract opportunities 项目合同机会
- A chance to attend Kaggle competition 有机会参加由Kaggle组织的世界顶级人工智能和大数据竞赛

Enterprise Programs 企业项目

- We offer customized internal machine learning training programs based on your company's challenges and/or existing projects. 我们根据贵公司的挑战或现有项目为您量身定制机器学习培训课程。
- We offer talent acquisition orientation programs to help companies identify and train their ideal machine learning candidates. 我们提供企业引才和入职培训帮助公司发现和培训机器学习专才。
- We offer machine learning and big data consulting services to help companies solve their current challenges and equip their project members with latest, most appropriate, and cost effective knowledge and solutions. 我们提供机器学习和大数据咨询服务帮助公司解决他们的现有难题，并培训项目团队成员，提供最前沿，最合适和最节约成本的解决方案。
- We can co-develop your required machine learning solutions 我们可以和公司联合开发机器学习解决方案。
- We accept contracts and/or OEM opportunities 我们接受项目合同或者OEM的机会。

Teachers Team 师资力量

- Machine Learning and Data Science Professors from top North American universities 北美知名高校机器学习和数据科学教授团队
- IBM Research Scientist IBM 研究科学家
- Intel Research Scientist Intel 研究科学家
- Patent inventors 专利发明人
- Machine Learning and Big Data Scientists from top tech companies i.e. Amazon, Google 来自顶尖科技公司例如亚马逊, 谷歌的数据科学和大数据科学家
- Machine Learning and Data Science PhDs from top North American universities 北美知名高校机器学习和数据科学博士生团队
- Available teaching languages: English, Chinese, French, and Arabic 可选的教学语言: 英语, 中文, 法语和阿拉伯语