Ubique Risk Management

Machine Learning (Foundation)

Course Description

Our live, tutor-led training course on Machine Learning is designed to provide you with a solid foundation in this exciting field. Guided by an experienced instructor in real time, this course blends interactive lectures, discussions, and practical exercises to ensure you gain both theoretical understanding and hands-on experience. Over the course of the training, you'll explore essential concepts such as data preprocessing, machine learning algorithms, and model evaluation techniques. A highlight of the program is a hands-on activity where you'll build a simple machine learning model with step-by-step guidance from your tutor. This live format offers the unique advantage of direct interaction with the tutor, allowing you to ask questions, clarify doubts, and receive personalised feedback throughout the session. You'll also participate in discussions on the ethics and future of machine learning, helping you approach this field with a well-rounded perspective.

Key Benefits

✓ **Hands-On Learning**

Build your first machine learning model using real datasets and Python.

✓ **Beginner-Friendly Approach**

No prior experience needed — perfect for non-technical professionals or aspiring data enthusiasts.

✓ **Real-World Applications**

Learn how ML is used across industries like marketing, finance, healthcare, and tech.

✓ **Job-Ready Skills**

Gain practical knowledge you can apply immediately in your work or projects.

✓ **Expert Guidance**

Live instruction from experienced ML professionals with time for Q&A.

✓ **Reusable Resources**

Keep all training materials, code, datasets, and tools for future reference.

✓ **Certificate of Completion**
Showcase your achievement and enhance your resume or LinkedIn profile.

✓ **Ethical Foundations**

Understand the ethical considerations and future impact of AI and ML.

Target Audience

Professionals and aspiring data enthusiasts with little to no coding or ML experience—ideal for analysts, marketers, product managers, developers, and anyone curious about leveraging data to solve real world problems.

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Benefits & Real Life Skills

By the end of this 4 hour course, you'll walk away with practical, immediately applicable skills—not just theory. You'll learn how to clean and prepare real datasets, choose and implement the right algorithms for different problems, and rigorously evaluate model performance using industry standard metrics. Beyond building a working machine learning model from scratch, you'll gain the confidence to translate business questions into data driven solutions, identify opportunities for automation, and communicate results effectively to non technical stakeholders. These skills empower you to accelerate your career, drive better decision making in your organisation, and stay ahead in an increasingly data driven world.

Duration: 4 Hours

Machine Learning Foundation Course Syllabus

1. **Fundamentals of Machine Learning**

Topics Covered:

- Definition and key concepts
- Types of Machine Learning:
    - Supervised Learning
    - Unsupervised Learning
    - Reinforcement Learning
- Real-world applications and examples

2. **Data Preprocessing**

Topics Covered:

- Importance of data quality
- Data cleaning and transformation
- Feature selection and engineering

3. **Machine Learning Algorithms**

Topics Covered:

- Overview of popular algorithms:
    - Linear Regression
    - Decision Trees
    - k-Nearest Neighbors (k-NN)
    - Support Vector Machines (SVM)
- When to use each algorithm

4. **Model Evaluation and Validation**

Topics Covered:

- Training vs. Testing datasets
- Cross-validation techniques
- Evaluation metrics:
    - Accuracy
    - Precision
    - Recall
    - F1-Score

5. Hands-On Activity: Building a Simple Model

Topics Covered:

- Data loading
- Preprocessing
- Training
- Evaluation
- Building a linear regression model
- Result analysis and improvement

6. Ethics and Future of Machine Learning

Topics Covered:

- Ethical considerations in ML (bias, privacy, etc.)
- Future trends and advancements

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Virtual Class System requirements

System requirements

- An internet connection – broadband wired or wireless (3G or 4G/LTE)
- Speakers and a microphone – built-in, USB plug-in, or wireless Bluetooth
- A webcam or HD webcam - built-in, USB plug-in, or:
- An HD cam or HD camcorder with a video-capture card
- Virtual camera software for use with broadcasting software like OBS or IP cameras

Supported operating systems

- macOS X with macOS X (10.11) or later
- Windows 11
- Windows 10

Note: Devices running Windows 10 must run Windows 10 Home, Pro, or Enterprise. S Mode is not supported.

- Ubuntu 12.04 or higher
- Mint 17.1 or higher
- Red Hat Enterprise Linux 8.0 or higher
- Oracle Linux 8.0 or higher
- CentOS 8 or higher
- Fedora 21 or higher
- OpenSUSE 13.2 or higher
- ArchLinux (64-bit only)

Note: On Windows devices, Zoom utilizes WebView2 and Chromium Embedded Framework (CEF) for certain features. If not available, these are downloaded automatically by Zoom, but admins should ensure these are whitelisted on managed devices.

Supported web browsers

- Desktop
- Chrome**:** Within 2 versions of current version
- Firefox**:** Within 2 versions of current version
- Edge**:** Within 2 versions of current version
- Safari**:** Within 2 versions of current version

As an example, if the current version of Chrome is 111, then Zoom supports versions 109, 110, and 111. As new versions are released, the minimum version will also follow behind by 2 versions.