GENERATIVE AI DATA ANALYST Program

Bootcamp Curriculum Overview

The AI and Data Analytics Training Program at WFI is an online, part-time course that requires just 10-15 hours a week, or less, making it an ideal option for those looking to advance their career without a full-time commitment. In just 3 months, you'll gain the knowledge and skills needed to become a proficient Data Analyst, even if you have no prior experience in the field.

This program will equip you with the tools to analyze complex data and help business leaders make data-driven decisions. Through a rigorous curriculum that includes concepts, theories, and hands-on projects, you will develop a strong foundation in AI and data analytics.**This course prepares learners to take Microsoft Power BI Data Analyst (PL-300) certification exam.**

Along the way, you'll receive all the support you need, including academic counseling, mentor office hours, and assessments, to help you navigate and succeed in the program.

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Invest in Acquiring the Required Skills

Invest in acquiring the essential skills to excel in the world of **AI** and **Data Analytics**. This program is not just a Data Analytics training bootcamp – it's a comprehensive pathway to launching a successful career in AI and Data Analytics. You will become part of an exclusive network of top 1% Data Analytics professionals from around the globe, gaining access to valuable networking events, the latest industry trends, insightful resources, webinars, and much more.

By completing this program, you'll develop critical skills to enhance data analysis and decision-making, learning advanced techniques and methodologies used by AI and Data Analytics experts. You'll gain both theoretical knowledge and hands-on experience in analyzing and interpreting data, preparing you to tackle real-world challenges.**This course is aligned with the Microsoft Power BI Data Analyst (PL-300) certification and prepares learners for the exam.**

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Who Should Attend This Training?

The AI and Data Analytics program is a versatile program designed for anyone interested in pursuing a career in AI and Data Analytics. Whether you're a millennial, a college graduate, or someone with a diploma, this program is tailored to fit individuals at any stage of their career:

New Career Seekers:

AI and Data Analytics are rapidly growing fields with high demand and lucrative opportunities for those with the right skills. This program provides the essential training to help you enter these exciting industries.

Career Changers:

If you've always had an interest in AI and Data Analytics and are looking to switch careers, this program offers foundational training to help you learn the basics and make a successful transition into the field.

Career Advancers:

If you've been working in data-related roles but want to take your career to the next level, this program's advanced training and coaching sessions with industry experts will help you enhance your skills and improve your ability to make data-driven decisions.

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Jobs You Will Be Ready For

Here is a list of real-world jobs that you can apply this bootcamp to:

- **Data Analyst**
- **AI/Data Scientist**
- **Business Intelligence Analyst**
- **Machine Learning Engineer.**

Generative AI and Data Analytics Bootcamp Structure

Throughout the **14 Weeks** of this program, you will go through lecture videos and a variety of individual exercises and group discussions, both in online self-paced format as well as weekly live instructor hours.

Online Modules

Self-paced learning through online course modules within our platform allowing you the flexibility with the hours you can choose to study within the week.

Weekly Office Hours

Your mentor will help you every week to guide through any challenges and questions for every weekly module you complete through Live Weekly Office Hours. This would be the time to also learn from the rest of the group's Q&A's too.

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Q&A Session

Bring all your questions you may have and get the answers you're looking for.

Review Session

During this session, we will review the previous week's work, what is expected the following week, and any other questions you may have that need answers

Course Outline

Program Length: 14 Weeks

Instruction Format: Mentor-led cohorts (online)

This comprehensive bootcamp provides hands-on labs, real-world projects, and in-depth preparation for the Professional Machine Learning Engineer certification from Google, along with a focus on key AI and data analytics skills. Designed for those aiming to enter AI-driven industries, the program covers foundational to advanced concepts in artificial intelligence, machine learning, and data analytics. Learners will also gain expertise in deploying AI models and building real-world data pipelines, with a strong emphasis on practical applications, career support, and mock exams to ensure exam success.**This course prepares learners to take Microsoft Power BI Data Analyst (PL-300) certification exam.**

No college degree is required. However, a basic understanding of **Python programming is recommended**, making this course ideal for individuals looking to start a career in Artificial Intelligence, Machine Learning, or Data Analytics.

Certifications Covered:

- Microsoft Power BI Data Analyst (PL-300)

- Understand AI, machine learning, and deep learning concepts.
- Master data collection, cleaning, and preparation.
- Apply machine learning algorithms to real-world problems.
- Build and evaluate models with TensorFlow
- Build and evaluate models with PyTorch.
- Optimize and deploy AI models.
- Visualize data with Tableau and Power BI.
- Explore generative AI models.
- Communicate technical results clearly.
- Gain skills for entry-level machine learning roles.

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Weekly Study Plan

Week	Module
1	Introduction to AI and Deep Learning
2	Basic Data Analytics and Statistics
3	Introduction to Machine Learning
4	Data Collection and Preparation
5	Basics of Generative AI Models
6	Data Exploration and Visualization
7	AI Model Training and Evaluation
8	Model Tuning and Optimization
9	Getting Started with TensorFlow and PyTorch
10	Deploying AI Models
11	Reporting, Documentation, and Communication
12	Microsoft Power BI Data Analyst – Part 1
13	Microsoft Power BI Data Analyst – Part 2
14	Capstone Project: Building Your First AI Model

Curriculum

1 Module 1: Intro to AI and Deep Learning

This module introduces the basics of AI and Deep Learning, covering key concepts like neural networks and their real-world applications. It differentiates between AI, machine learning, and deep learning, providing a solid foundation for more advanced topics.

2 Module 2: Basic Data Analytics and Statistics

Learners will explore basic statistical concepts, such as mean, variance, and standard deviation, along with data analysis techniques. This module helps build skills in summarizing and visualizing data for better decision-making.

3 Module 3: Introduction to Machine Learning

This module covers the fundamentals of machine learning, including supervised, unsupervised, and reinforcement learning. Learners will also become familiar with key algorithms like linear regression and decision trees.

4 Module 4: Data Collection and Preparation

Focusing on data preprocessing, this module teaches how to clean, normalize, and engineer features from raw data, while ensuring proper data splitting for training, validation, and testing.

5 Module 5: Basics of Generative AI Models

Learners will explore generative models like GANs and VAEs, which create new data based on existing patterns, and understand their challenges and applications in image and text generation.

6 Module 6: Data Exploration and Visualization

This module covers tools and techniques for visualizing data, helping learners identify trends, outliers, and patterns using charts, graphs, and plots with libraries like Matplotlib and Seaborn.

7 Module 7: AI Model Training and Evaluation

Learners will focus on training machine learning models and evaluating their performance using metrics like accuracy, precision, and recall. This module emphasizes model testing and avoiding overfitting.

8 Module 8: Model Tuning and Optimization

This module covers hyperparameter tuning, regularization, and optimization techniques to improve model performance, helping learners fine-tune models for better accuracy and efficiency.

9 Module 9: Starting with TensorFlow & PyTorch

Learners will focus on training machine learning models and evaluating their performance using metrics like accuracy, precision, and recall. This module emphasizes model testing and avoiding overfitting.

10 Module 10: Deploying AI Models

This module covers the deployment of AI models into production, teaching learners about tools like TensorFlow Serving and Docker, as well as monitoring and maintaining deployed models.

11 Module 11: Report, Document & Communicate

Learners will focus on effectively communicating AI results, creating clear reports, and documenting code to ensure both technical and non-technical stakeholders can understand the findings.

12 Module 12: Microsoft Power BI Data Analyst – Part 1

This module introduces the core concepts of Power BI, including data loading, transformation using Power Query, and building foundational data models. Learners will gain hands-on experience in preparing and cleaning data for analysis.

13 Module 13: Microsoft Power BI Data Analyst – Part 2

This module focuses on advanced data modeling, DAX calculations, and creating interactive dashboards and reports. It also covers data visualization best practices and sharing insights using Power BI services.

14 Module 14: Building Your First AI Model

In the capstone project, learners will apply everything they've learned to build, train, and deploy an AI model, culminating in a final report that demonstrates their ability to work through the entire AI pipeline.