Artificial Intelligence (Machine Learning & Deep Learning) [Course]
Week 10 - AI Deployment
[See examples / code in GitHub code repository]

It is not about Theory, it is 20% Theory and 80% Practical – Technical/Development/Programming [Mostly Python based]

AI Deployment

Deploying machine learning models enables your applications to make real-time predictions and decisions.

AI Deployment Via Flask

Flask is a web application framework written in Python. It was developed by Armin Ronacher, who led a team of international Python enthusiasts called Poocco. Flask is based on the Werkzeg WSGI toolkit and the Jinja2 template engine.Both are Pocco projects.

Reference:
https://www.geeksforgeeks.org/python/flask-tutorial/
https://pythonbasics.org/what-is-flask-python/
https://flask.palletsprojects.com/en/stable/

Practical Development Case Study

Reference:
https://medium.com/@emyasenc/deploying-machine-learning-models-with-flask-fastapi-or-streamlit-an-in-depth-guide-30c2e1f2ee44

Model Saving:

https://github.com/ShahzadSarwar10/FULLSTACK-WITH-AI-BOOTCAMP-B1-MonToFri-2.5Month-Explorer/blob/main/Week9/Case9-5-LinearRegressionViaSciKitLearn-SaveModel.py

Model Calling via Flask

https://github.com/ShahzadSarwar10/FULLSTACK-WITH-AI-BOOTCAMP-B1-MonToFri-2.5Month-Explorer/blob/main/Week9/Case9-5-LinearRegressionViaSciKitLearn-ModelDeploymentWithFlask.py

AI Deployment Via FastAPI

FastAPI is a modern, high-performance web framework for building APIs with Python based on standard type hints. It has the following key features:

Fast to run: It offers very high performance, on par with NodeJS and Go, thanks to Starlette and pydantic.

Fast to code: It allows for significant increases in development speed.

Reduced number of bugs: It reduces the possibility for human-induced errors.

Intuitive: It offers great editor support, with completion everywhere and less time debugging.

Straightforward: It's designed to be uncomplicated to use and learn, so you can spend less time reading documentation.

Short: It minimizes code duplication.

Robust: It provides production-ready code with automatic interactive documentation.

Standards-based: It's based on the open standards for APIs, OpenAPI and JSON Schema.

Practical Development Case Study

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Model Saving:

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Model Calling via FASTAPI

https://github.com/ShahzadSarwar10/FULLSTACK-WITH-AI-BOOTCAMP-B1-MonToFri-2.5Month-Explorer/blob/main/Week9/Case9-5-LinearRegressionViaSciKitLearn-ModelDeploymentWithFASTAPI.py

Thank you - for listening and participating

❑**Questions / Queries**

❑**Suggestions/Recommendation**

❑**Ideas…..?**

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