

Deploying models in production

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2024-10-26

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Intro

- ▶ Deploying a model in production is a complex task that requires a deep understanding of the model, the data and the infrastructure.
- ▶ Actuaries were traditionally involved in the first two aspects, but the third one is becoming more and more important.
- ▶ Modern Python frameworks make the third aspect easier.

MLOps: Enhancing the ML Model Lifecycle

- ▶ **Definition:** MLOps integrates practices to automate and manage the entire machine learning model lifecycle, improving deployment efficiency and reliability in production.
- ▶ **Why It's Needed:** Bridges the gap between development and production, enabling better collaboration between data scientists and engineers for models that are more performant, scalable, and maintainable.
- ▶ **Key Benefits:** Unified workflow reduces errors, accelerates deployment, and provides continuous monitoring to keep models up-to-date and accurate.

Streamlit walkthrough

When you click the **Render** button a document will be generated that includes:

- ▶ Content authored with markdown
- ▶ Output from executable code

FastApi walkthrough

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When you click the **Render** button a presentation will be generated that includes both content and the output of embedded code. You can embed code like this:

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