

The STANFORD UNIVERSITY Offers Machine Learning Systems Design(MLOps)

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 cs329s Official Page: <https://lnkd.in/dTg5BuiD>

 Video Lectures: <https://lnkd.in/dsrBj5TT>

 : Designing Machine Learning Systems Book by [Chip Huyen](#)

❖ Machine learning systems design is the process of defining the software architecture, infrastructure, algorithms, and data for a machine learning system to satisfy specified requirements.

❖ The tutorial approach has been tremendously successful in getting models off the ground. However, the resulting systems tend to go outdated quickly because

- (1) the tooling space is being innovated,
- (2) business requirements change, and
- (3) data distributions constantly shift.

Without an intentional design to hold all the components together, a system will become technical liability, prone to errors and quick to fall apart.



Catalog of Lectures :

◆ 1. Understanding machine learning production:

📄: <https://bit.ly/3Fpjjiwi>

◆ 2. ML and Data Systems Fundamentals:

📄: <https://bit.ly/3Plt7Mm>

◆ 3. Training Data:

📄: <https://bit.ly/3FfW0VO>

◆ 4. Feature engineering:

📄: <https://bit.ly/3UUAtHQ>

◆ 5. Model selection, development, and training:

📄: <https://bit.ly/3iVHJ9e>

◆ 6. Offline evaluation:

📄: <https://bit.ly/3ulZkUn>

◆ 7. Model evaluation Tutorial by Goku Mohandas (MadeWithML):

📄: <https://bit.ly/3VUqgMZ>

◆ 8. RecList by our very own Chloe He:

📄: <https://bit.ly/3PmbsUU>

◆ 9. Deployment:

📺: <https://bit.ly/3PjzT5u>

◆ 10. Deployment tutorials:

📺: How to evaluate MLOps tools by Hamel

Husain: <https://bit.ly/3Hy1ePC>, Video : <https://bit.ly/3hISK3e>

📺: Deploy models with Ray Serve by Simon Mo

(Anyscale): <https://bit.ly/3BqUb79>

◆ 11. Diagnosis of ML system failures & data distribution shifts & monitoring:

📺: <https://bit.ly/3WfTuWe>

◆ 12. Monitoring & Continual Learning Data Distribution Shifts on Streaming Data by Shreya Shankar:

📺: <https://bit.ly/3WdVRcs>, <https://bit.ly/3iX3XrB>

◆ 13. Model Deployment @ Stitch Fix by Stefan Krawczyk:

📺: <https://bit.ly/3BvWdDe>

◆ 14. Experiment tracking & versioning with Weights & Biases by Lavanya Shukla:

📺: <https://bit.ly/3YmjzVQ>

◆ 15. Monitoring Tutorial:

📺: WhyLogs tutorials by Alessya

Visnjic: <https://bit.ly/3houy07>, <https://bit.ly/3FremDv>

📖: Evidently tutorials by Emeli Dral: <https://bit.ly/3iYA6Pt>

💡 16. Deploying time series forecasting and graph neural networks by Kyle Kranen

📖: ML beyond accuracy: Fairness, Security, Governance by Sara Hooker : <https://bit.ly/3HwUW2z>

💡 17. ML Infrastructure and Platform:

📖: <https://bit.ly/3Fnx5zl>

💡 18. Integrating ML into business:

📖: Grace Isford (Lux Capital): How to pitch

📖: Nnamdi Iregbulem (Lightspeed): Go to market

📖: Astasia Myers (Quiet): Business values of AI

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