



Bringing Machine Learning Models to Production

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Outline



Top 5 problems with ML model deployment



Workflow of ML model



Case Study – Salesforce



Key considerations for successful deployment



Conclusion

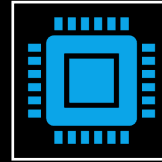
Top 5 Problems while deployment



Data Quality and
availability



Model
Interpretability &
Availability



Scalability &
Performance



Integration with
Existing System



Model Engineering
& Maintenance

Workflow of ML model development

Data collection

Data pre-processing

Building Datasets

Training & Refinement

Machine Learning evaluation



Case Study Deployment - Salesforce



Cloud Based software Company



Based out of San Francisco, USA



Employees ~73000



Revenue \$34.85B in 2023-24



Subsidiaries – Slack, Tableau, Mulesoft

Key Consideration for Successful Deployment



DEFINE OBJECTIVES
AND SUCCESS
METRICS



INFRASTRUCTURE
SETUP &
DEPLOYMENT
STRATEGIES



DATA PIPELINE &
INTEGRATION



MODEL
MONITORING AND
PERFORMANCE
MANAGEMENT



SCALABILITY &
RELIABILITY

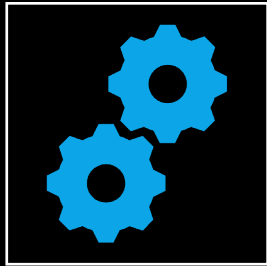


SECURITY &
COMPLIANCE

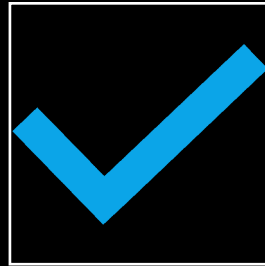


DOCUMENTATION
AND KNOWLEDGE
TRANSFER

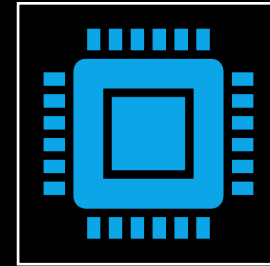
Conclusion



Availability – Implemented Fault tolerance mechanism, load balancing techniques



Reliability – Regular performance testing, documentation and knowledge transfer



Scalability – Load testing and capacity planning ensure scalability

Bibliography

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Thank you

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