Praveen Bagare

AI & ML in TDM

PACIFIC NW SOFTWARE QUALITY CONFERENCE

THE FUTURE IS NOW

PNSQC.ORG

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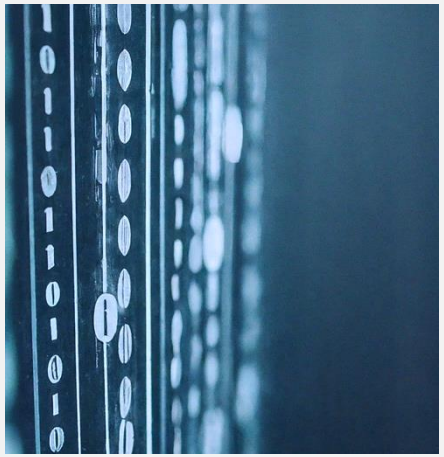
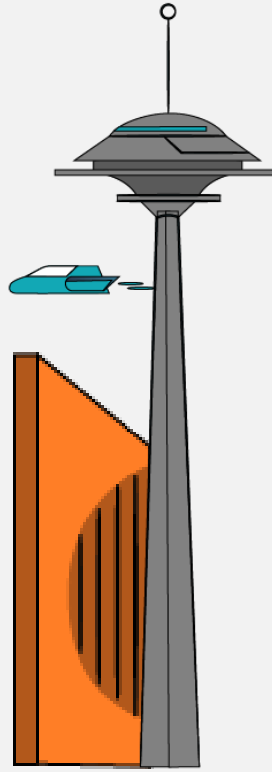
What is Test Data Management?

There are many definitions, here is one.

The process of provisioning data for testing ensuring it is of high quality, provisioned in suitable quantity, right format, appropriate environment, and in the stipulated time.





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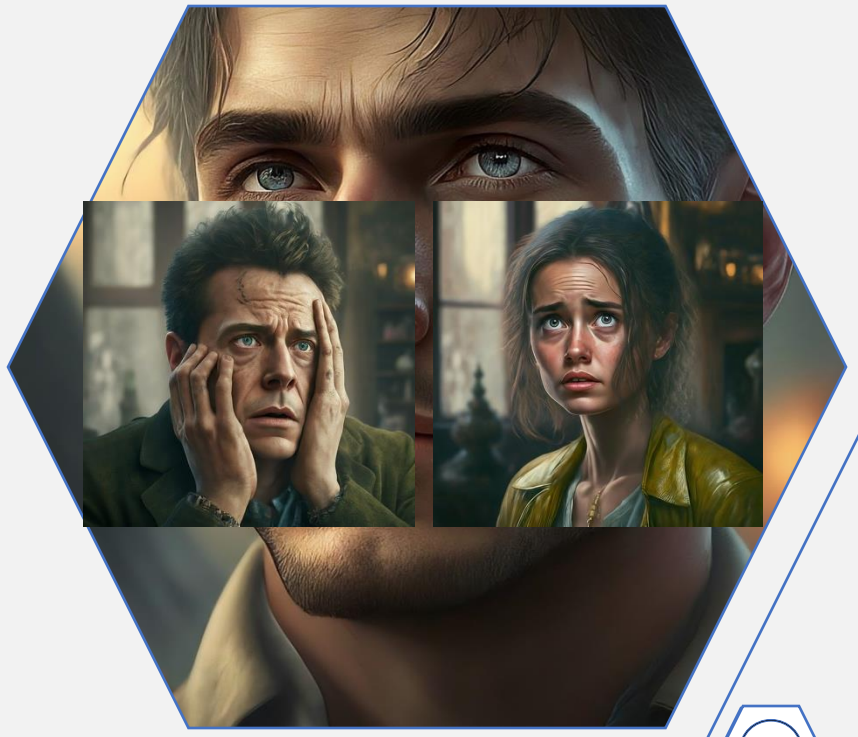
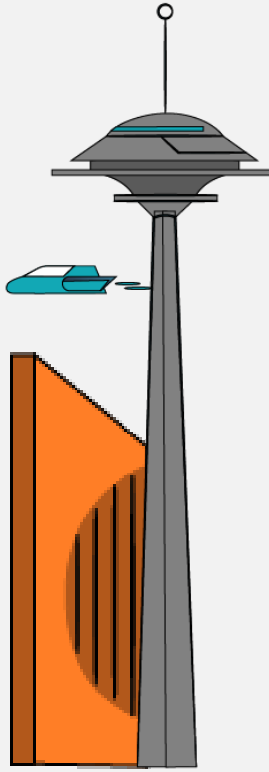


About 50% of a tester's effort is spent around sourcing, maintaining and managing test data.



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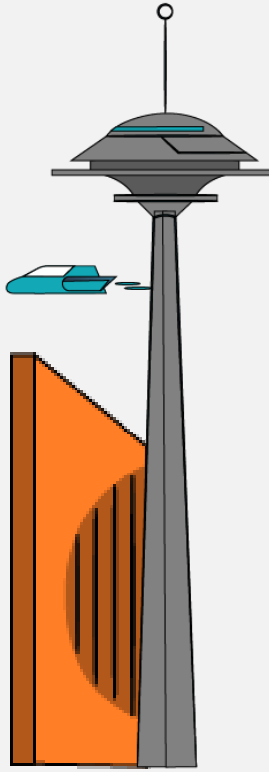
How do we solve this problem?



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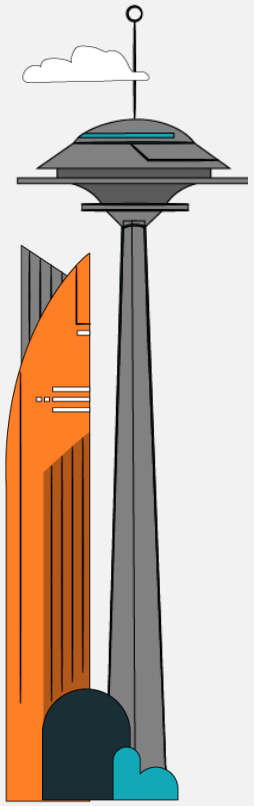
TDM Approach 1



Leverage Masking

- Discover the data landscape
- Identify a tool
- Find Sensitive data
- Get stakeholder sign off
- Mask and load the data
- Get feedback & improve

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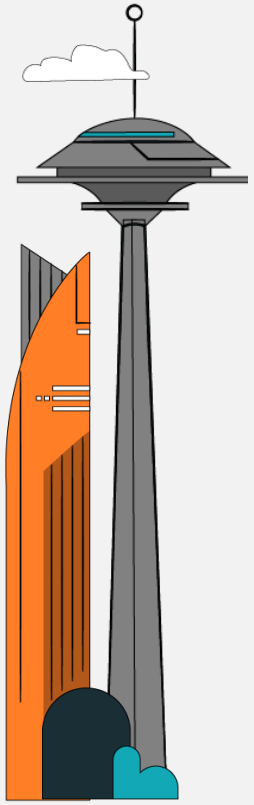
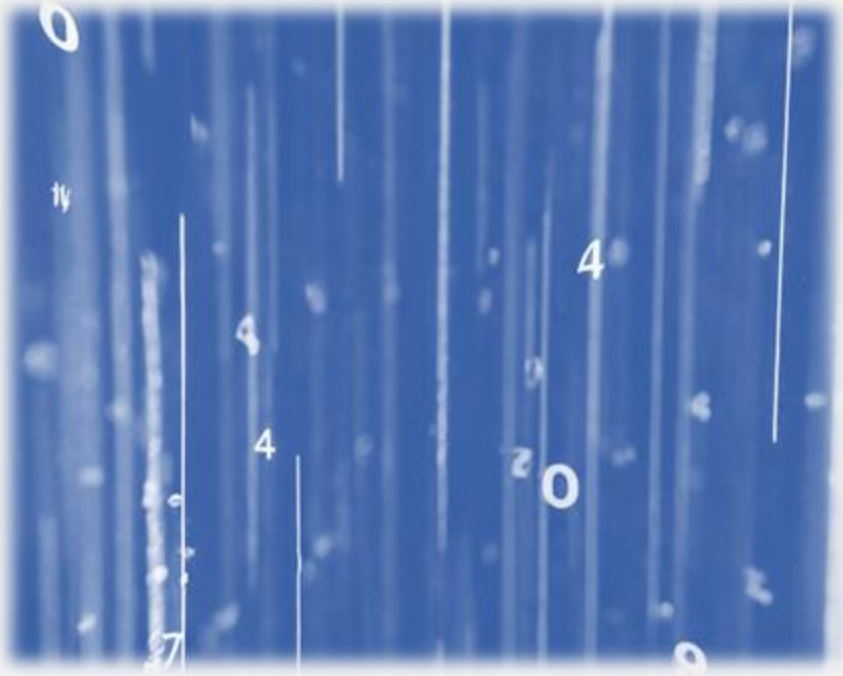
TDM Approach 2



Leverage Synthetic data generation

- Discovery - Understand metadata, relationships and data flow
- Identify right data generation tool
- Build generation rules, business logic, lookup etc.
- Generate & load synthesized data
- Get feedback & improve



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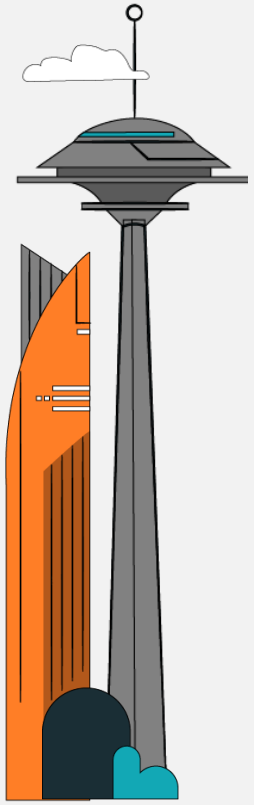
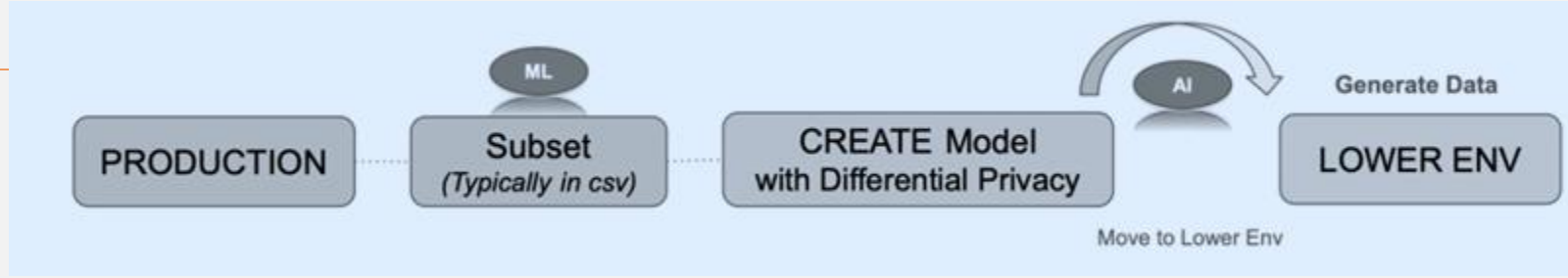
TDM Approach 3



Leveraging AI & ML data generation

- Identify the data in scope *(subsetting)*
- Update config file *(number of epochs, relationships, pass through etc.)*
- Run machine learning *(Train)*
- Move the differential privacy applied model to desired environment.
- Run the synthetic data generation *(Infer)*



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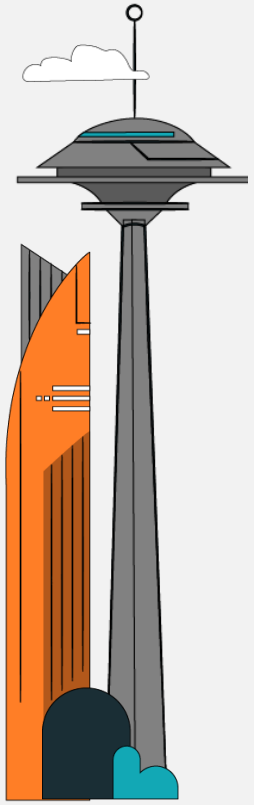

Approach 3 Demo

Leveraging AI and ML in data generation

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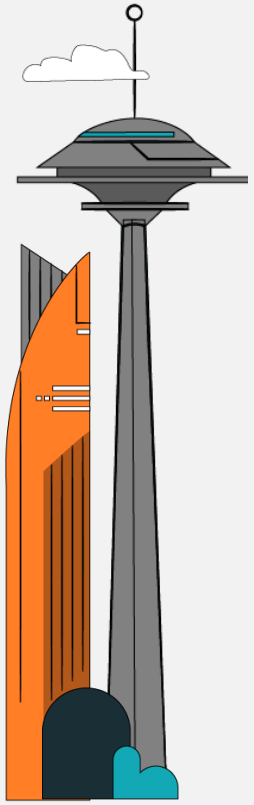

Please share your feedback!

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Thank you!