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By:



16 – 18 November 2024
Common Ground Bukit Bintang, Kuala Lumpur

Challenge 2

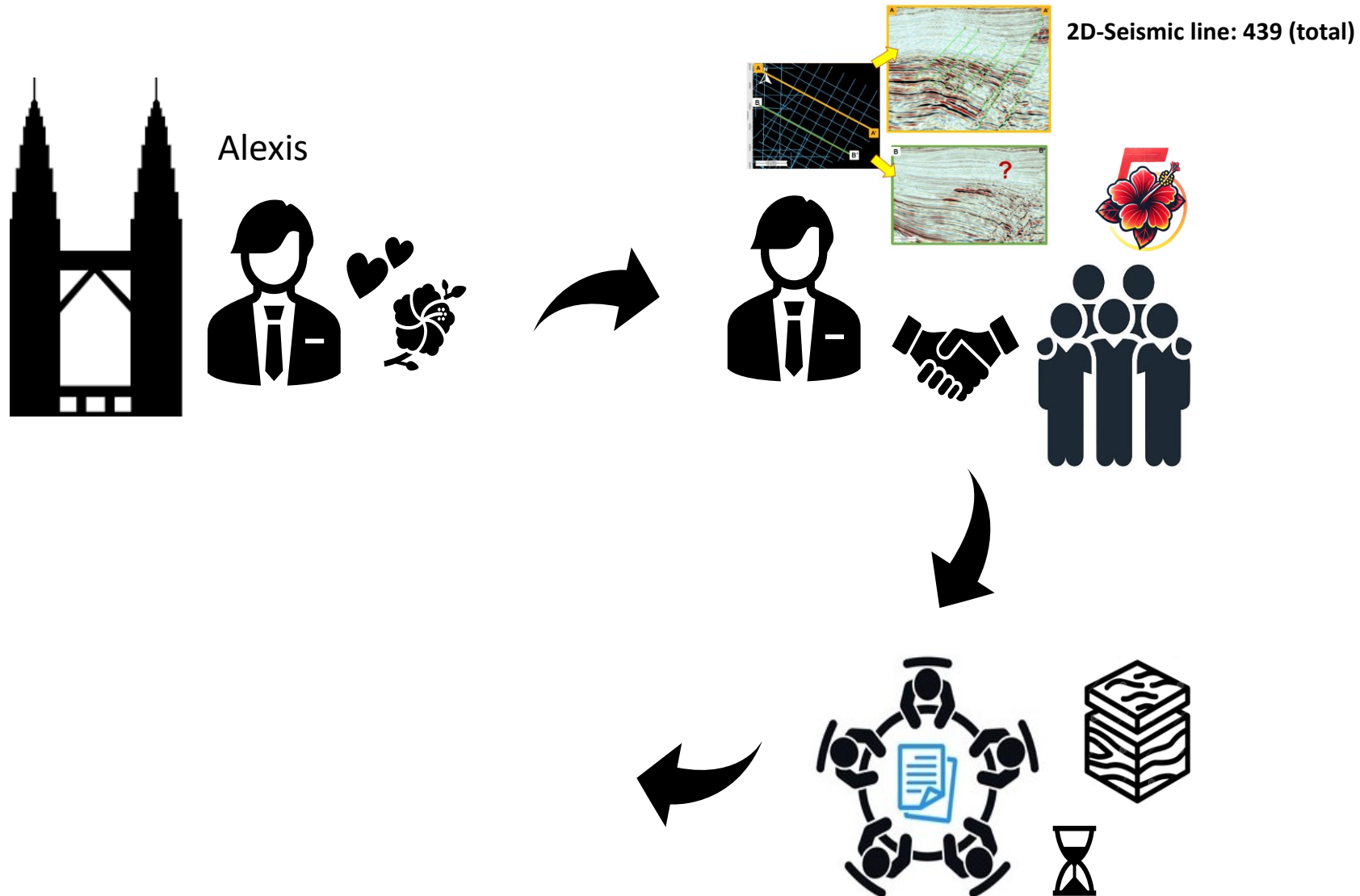


Bunga Raya # 5
Saiful | Jay | Thong | Karthi | Kaijie

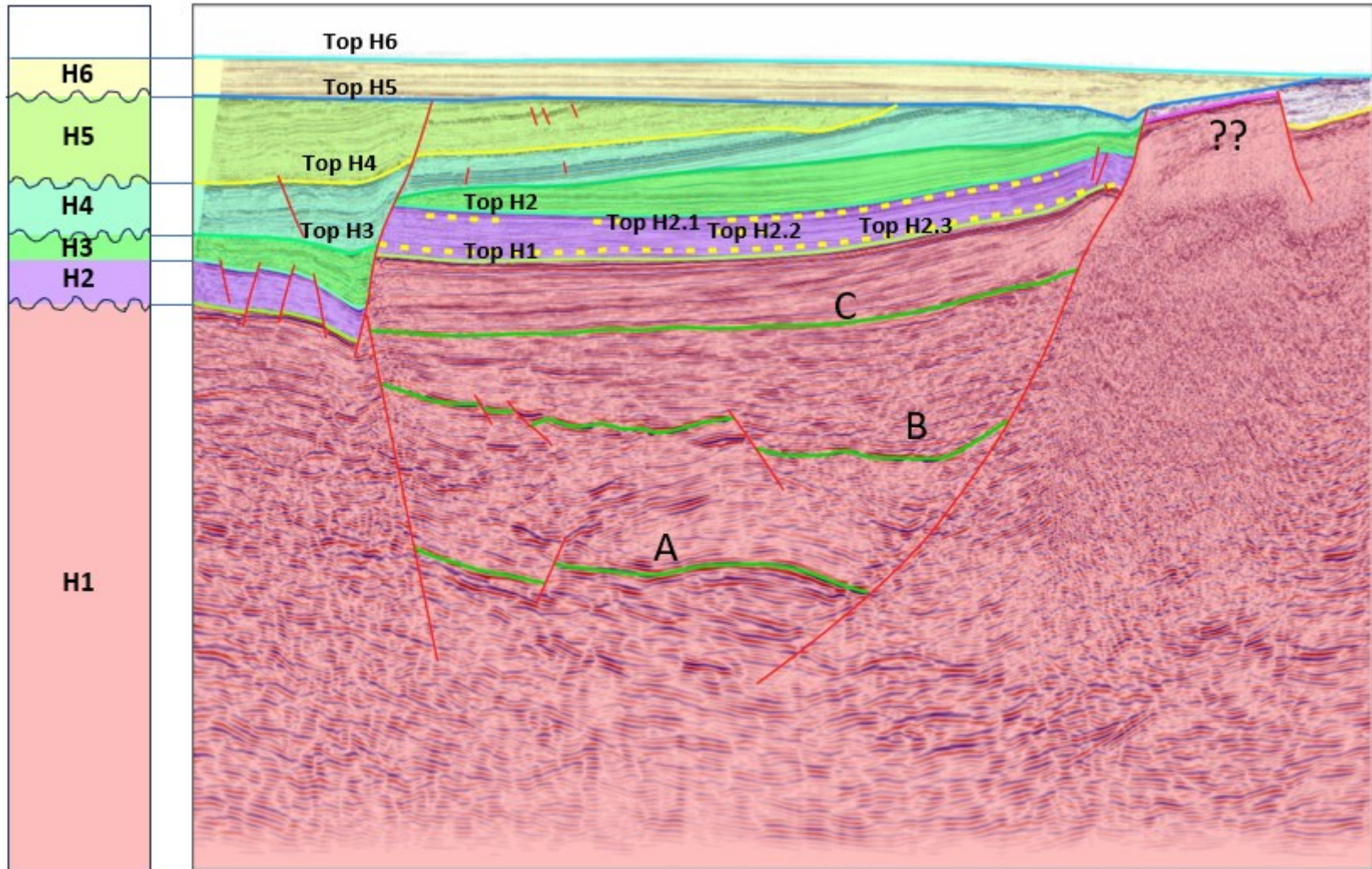
Sponsored by:



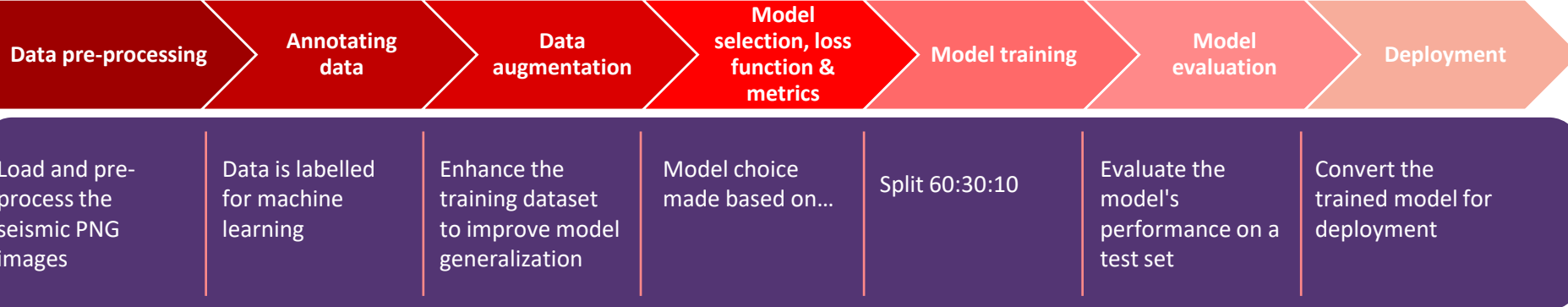
The Story of....

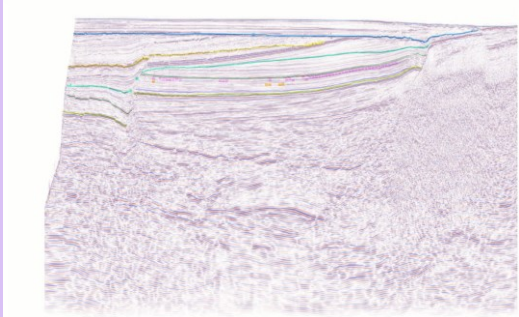


Geology Overview

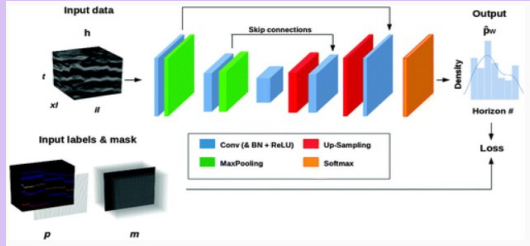


Methodology







19 total layers:
9 convergence vs 9 upsampling



Main reference: [Extracting horizon surfaces from 3D seismic data using deep learning | GEOPHYSICS](#)



Expertise evaluation

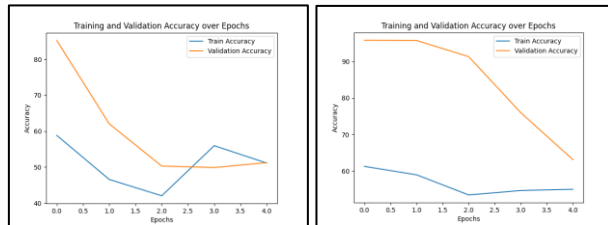
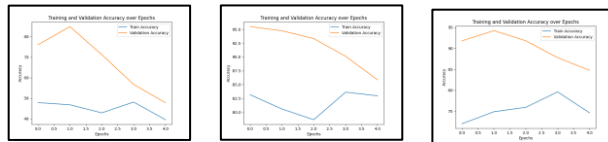
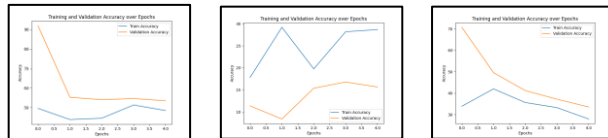


Publish trained model for deployment in other seismic inlines/crosslines

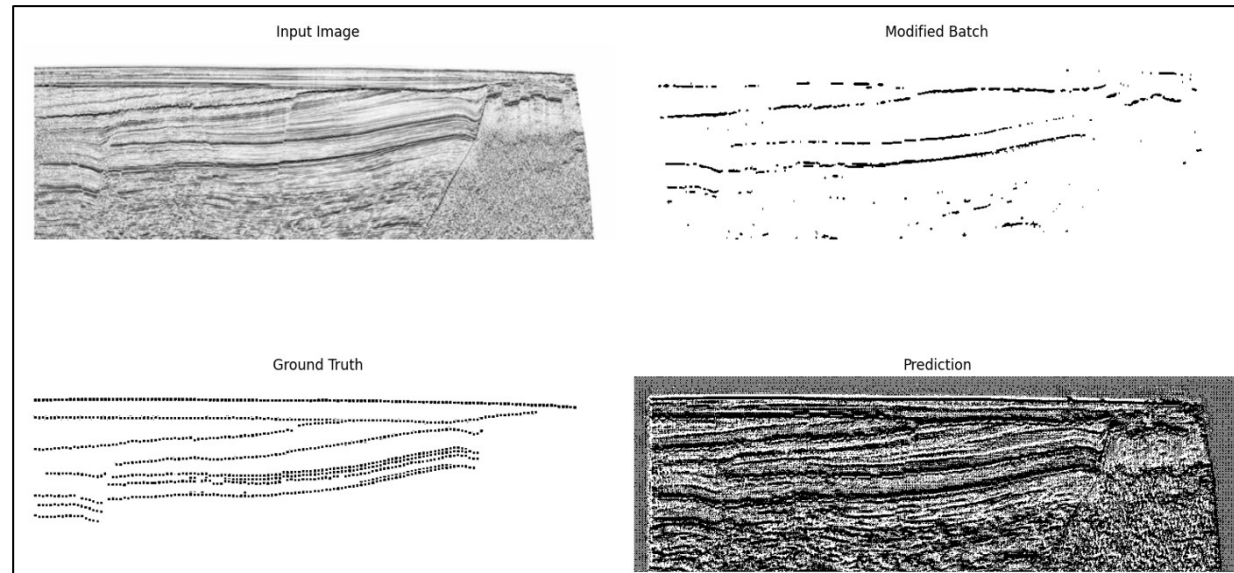
- SimpleCNN
 - Adam
- DeepUNetCustom
 - SGD
- Manual gridsearch
- Accuracy suffers, huge penalty on false positive

Results

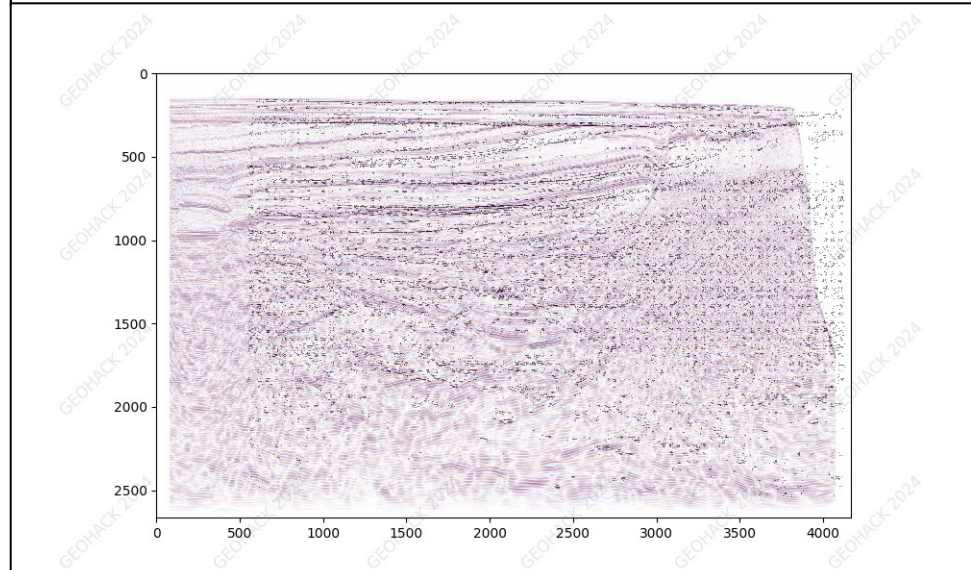
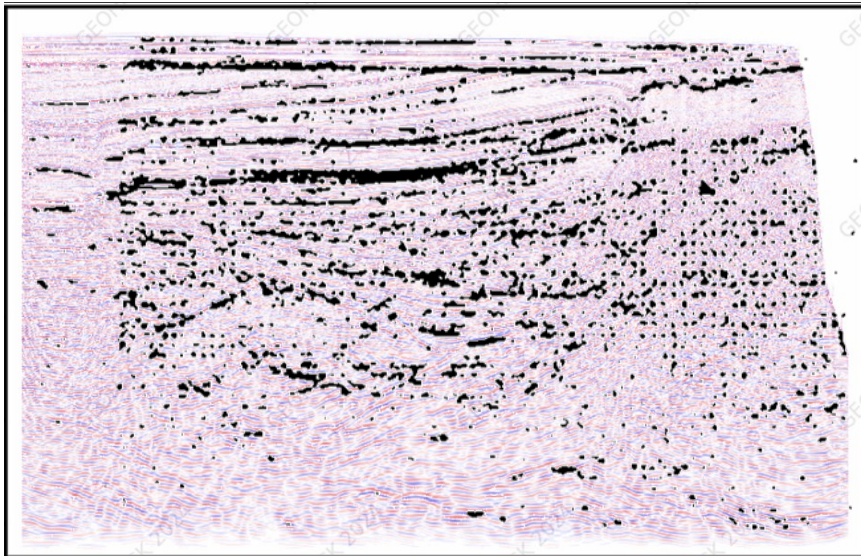
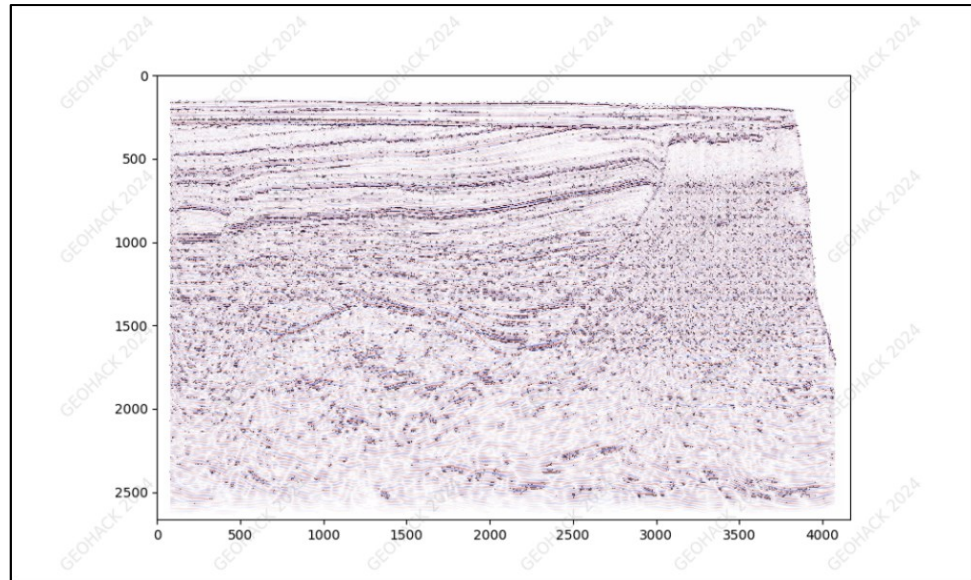
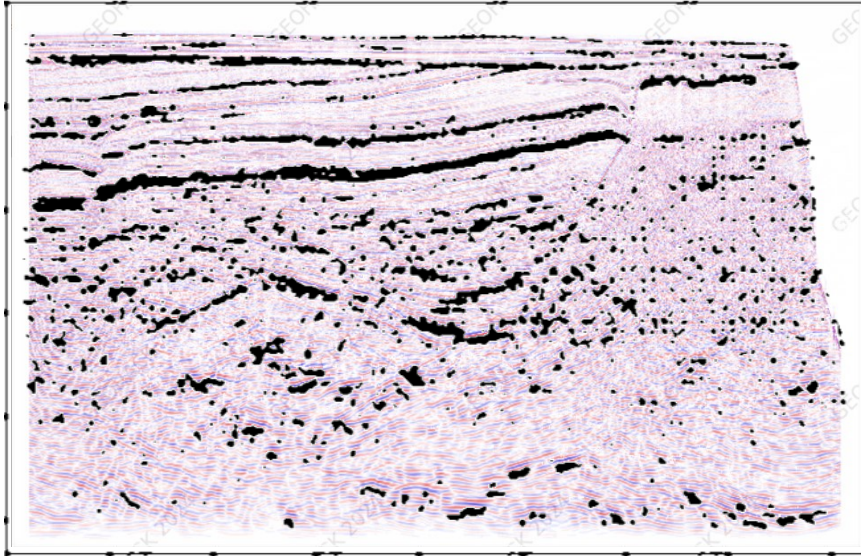
115 Different Models



Sample Results (from one of our models)

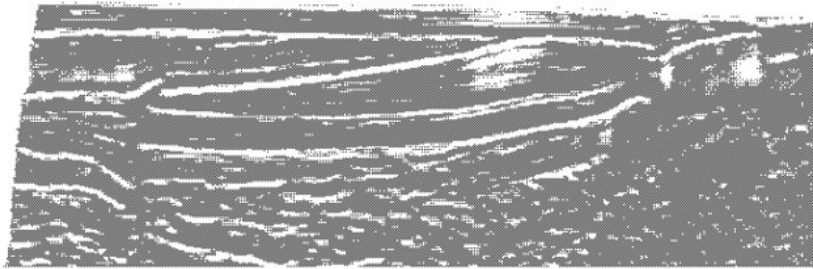


Surprise! Additional data?! (Holdout)

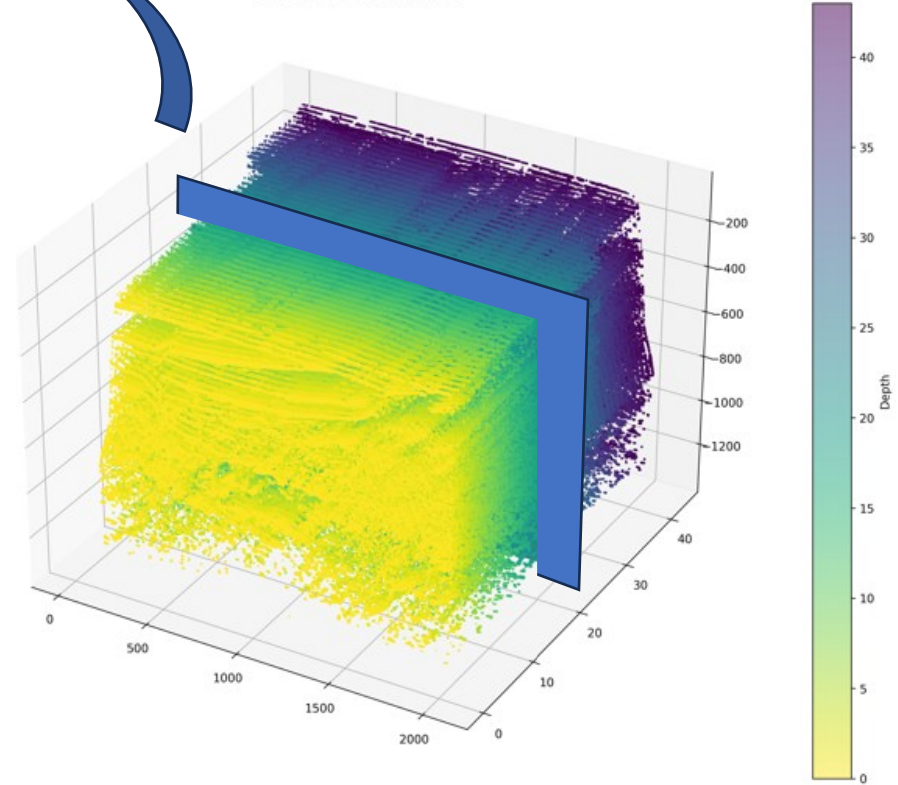


Value Driven Integration of Technology & Domain

Prediction

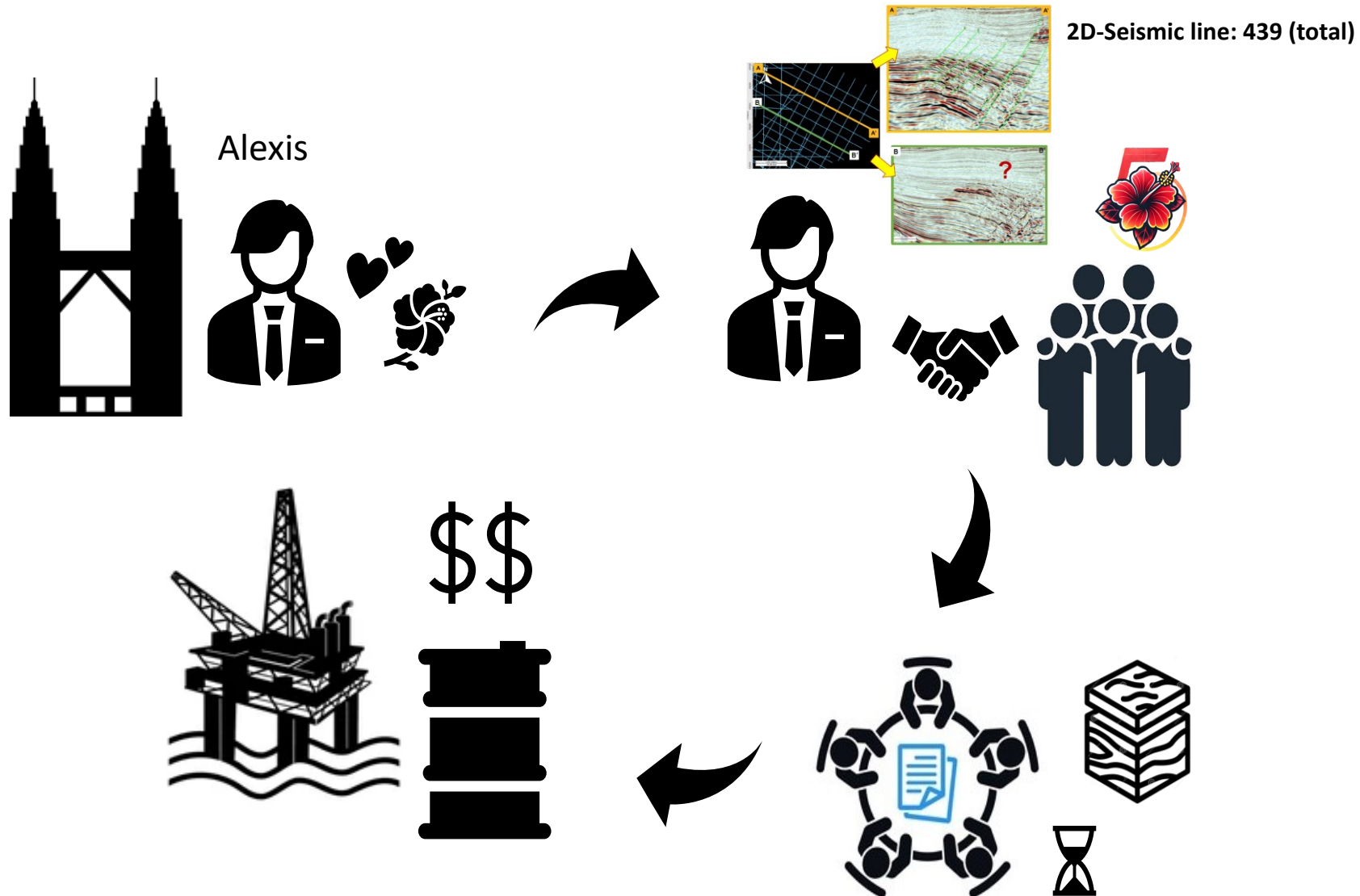


3D Point Cloud Visualization



- Full culmination of our relentless pursuit into a valuable 3D model:
 - Structure
 - Seal
 - Trap
 - Gross Volumetrics
 - STOIP
 - Economics

The Story of....



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Thank you!