Explainable AI in Biomedical Predictions — Hands-on

Build interpretable, auditable AI for biomedical use-cases. Learn local & global explanation methods, counterfactual analysis, uncertainty quantification, calibration, bias/fairness auditing, and rigorous reporting so your models can be trusted in research and translational settings.

Explainable AI in Biomedical Predictions

Help Desk · WhatsApp

Session Index

Session 1

Fee: Rs 13,200 Apply Now

XAI Foundations & Global vs Local

Why explainability? risk, accountability, reproducibility

research & clinical contexts **audit trails**

Global vs local explanations & evaluation

global importances **local attributions** **fidelity/stability tests**

Toolchain

SHAP, LIME **Captum / ELI5** **Alibi / DiCE**

Session 2

Fee: Rs 18,400 Apply Now

Feature Attributions & Saliency

Model-agnostic & model-specific methods

permutation importance | partial dependence/ICE | accumulated local effects

Deep nets interpretability

Integrated Gradients | Grad-CAM/CAM | DeepLIFT/SmoothGrad

Reliability checks for explanations

sanity checks | stability/robustness | faithfulness metrics

Session 3

Fee: Rs 23,600 Apply Now

Counterfactuals, Uncertainty & Fairness

Counterfactual explanations & recourse

DiCE | actionability/feasibility | cost constraints

Uncertainty & calibration

aleatoric/epistemic | temperature scaling | conformal prediction

Fairness & bias audits

group/individual fairness | thresholding & parity | mitigation strategies

Session 4

Fee: Rs 29,600 Apply Now

Mini Capstone: XAI Audit & Report

End-to-end audit on a real bio model (omics/clinical)

Theory + Practical

Governance artifacts & documentation

model cards **datasheets** **risk register**

Deliverables: notebook, XAI dashboard & PDF brief

attribution plots **counterfactuals** **calibration curves**