

AI Roadmap: Weeks 1–4 (Checklist)

Week 1 (Sep 6 – Sep 12): Python & Math Basics

- Python: syntax, loops, functions (FreeCodeCamp Python)
- NumPy, Pandas basics (Kaggle free tutorials)
- Math: Linear Algebra (Khan Academy)

Week 2 (Sep 13 – Sep 19): Statistics & ML Intro

- Descriptive stats: mean, median, variance
- Probability basics
- ML basics: supervised vs unsupervised
- Hands-on: Kaggle Titanic Dataset

Week 3 (Sep 20 – Sep 26): Core ML Models

- Regression (Linear & Logistic)
- Classification models (Decision Trees, kNN)
- Evaluation metrics: accuracy, precision, recall, F1
- Practice: Kaggle datasets

Week 4 (Sep 27 – Oct 3): Intermediate ML & Projects

- Feature engineering & preprocessing
- Model validation (train/test split, cross-validation)
- Ensemble models: Random Forest, Gradient Boosting
- Mini-project: Customer Churn prediction (Kaggle)