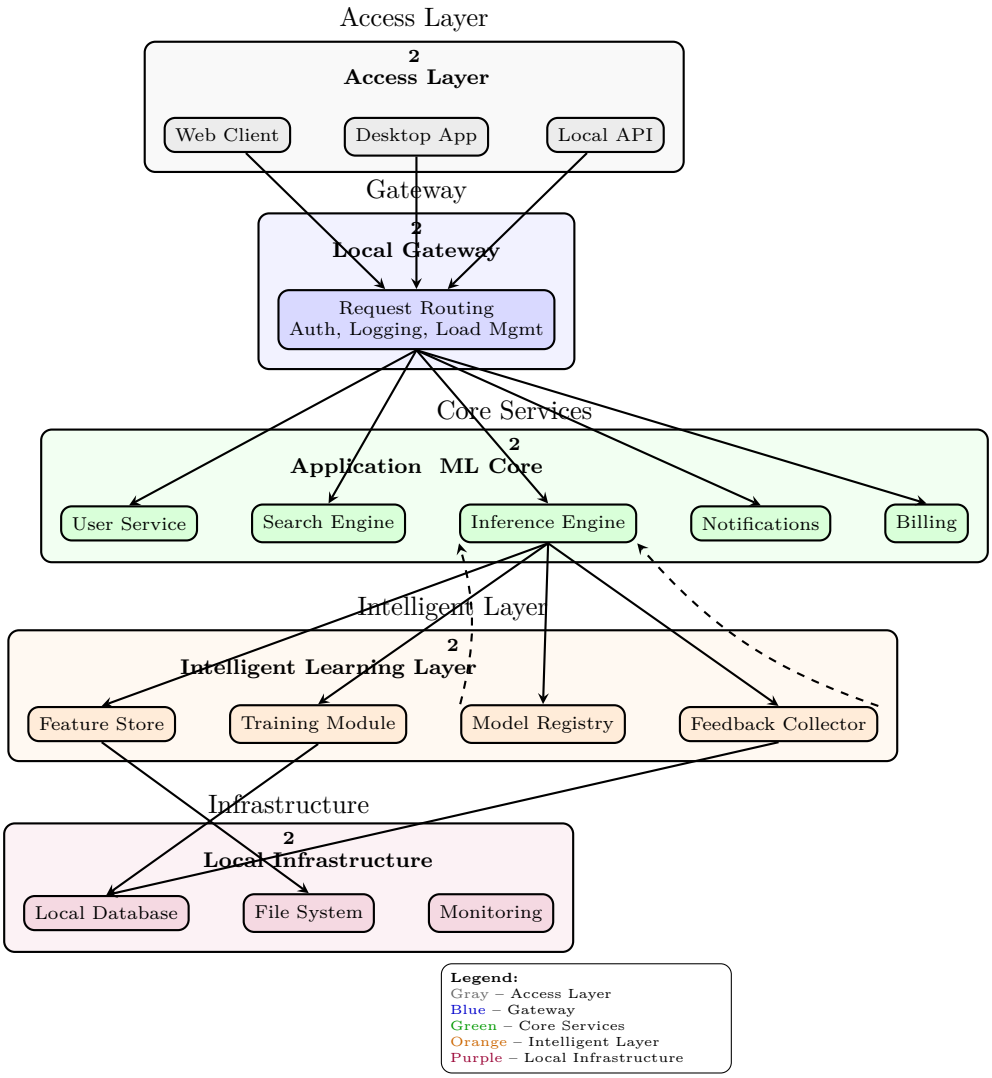
DeepSeek – Local Intelligent Architecture

On-Premise Learning and Feedback-Driven System



Description of the Local Intelligent Architecture:

This architecture enhances the local version of DeepSeek by integrating **machine learning and self-improvement capabilities**. It remains fully deployable on a single server or local cluster, maintaining modularity and simplicity while enabling autonomous learning.

Access Layer: Provides local access through web, desktop, or API interfaces. **Local Gateway:** Manages routing, authentication, and request logging within a single environment. **Application & ML Core:** Offers core functionalities (user, search, inference, notifications, billing) and uses the inference engine for AI-driven recommendations or analysis. **Intelligent Learning Layer:** Introduces intelligence through four key components: - *Feature Store:* Stores preprocessed features extracted from local data. - *Training Module:* Retrains models periodically or when new feedback is available. - *Model Registry:* Manages model versions and handles automatic deployment to the inference engine. - *Feedback Collector:* Gathers user interactions and predictions to feed the training loop.

Local Infrastructure: Hosts databases, file storage, and monitoring systems for logs, metrics, and model artifacts.

This architecture transforms DeepSeek into a **self-learning system**: it collects data, learns locally, and continuously improves its predictions. It is ideal for organizations needing privacy-preserving AI capabilities without relying on cloud resources — combining local control with adaptive intelligence.