

# AtlasPro AI System Architecture

- Agent Orchestration
- MCP Protocol
- Core AI Backend
- Data Platform

User Interface  
(Natural Language Queries)

## Agentic Orchestration Layer

ReAct  
Reasoning

Memory  
Manager

Task  
Planner

Tool  
Selector

Safety  
Guard

## Model Context Protocol (MCP) Layer

GNN Query Tools

Spatial Analysis

Network Ops

External APIs

## Core AI Backend

Graph Neural  
Network Engine  
(GCN, GAT, GraphSAGE)

Spatio-Temporal  
GNN  
(DCRNN, STGCN)

World Model  
(Simulation &  
Prediction)

LLM Integration  
(GPT-4, Claude,  
Gemini)

## Data Platform

Graph  
Database  
(Neo4j)

Vector  
Store  
(Embeddings)

Geospatial  
Data  
(PostGIS)

Time Series  
DB  
(InfluxDB)

Document  
Store

External  
Data  
Sources

Feedback  
Loop