# Davis AI in Dynatrace

## 🔍 What Is Davis AI?

Davis is Dynatrace’s proprietary, hypermodal AI engine combining three AI paradigms:  
1. Predictive AI – Forecasts metric trends (e.g., resource usage forecasts, seasonal baselining, anomaly predictions across full systems).  
2. Causal AI – Detects anomalies and leverages automatic fault‑tree analysis (causation-driven root cause) using topology, metrics, traces, logs, and more.  
3. Generative AI (Davis CoPilot) – Converts natural-language prompts into DQL queries, dashboards, notebooks or remediation scripts, aiding both insights and automation.

## 🛠 Core Capabilities

- Anomaly Detection & Root Cause: Auto-detects performance issues, groups them by topology and impact, and pinpoints precise root causes—no manual rule writing.  
- Forecasting & Auto-remediation: Uses adaptive baselines to preemptively flag deviations, predict capacity needs, and trigger automated workflows like disk resizing or scaling.  
- Natural-Language Analytics & Dashboards: Davis CoPilot turns “Show me average latency last week” into a ready-made chart or query.  
- Generative-powered Orchestration: Builds full incident-response playbooks, firewall rules, remediation actions, and more from conversational requests.

## 📈 Why It Matters

- Faster resolution: Automated root cause analysis shortens MTTR.  
- Proactive operations: Shifts from reactive alerting to prevention via forecasting and remediation.  
- Democratized data insights: Enables anyone to query, visualize, and act—no coding or specialized skills required.  
- Human–machine synergy: Balances automation with oversight, letting teams focus on innovation.

## 💡 Use Cases

- Monitoring complex multi-cloud and Kubernetes apps.  
- Auto-scaling infrastructure based on forecasted demand.  
- Security ops: auto-detect threats (e.g. anomalous login failures) and trigger firewall policies in real-time.  
- AI observability: monitoring generative AI (e.g., OpenAI) services performance and cost within your apps.

## ✅ In Summary

Davis AI empowers Dynatrace to deliver true AIOps: prediction, diagnosis, and action—all in a single self-operating platform. Its multimodal approach is a key differentiator:  
  
- No-code analytics  
- Predictive operations  
- Causal‑driven root cause  
- Generative AI automation  
  
Whether for proactive reliability, smarter dashboards, or AI-augmented remediation, Davis accelerates both productivity and resilience for SRE, DevOps, and business teams alike.