

Multi-Agent Systems

A Software Development Revolution

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Agenda

- Introduction
- What is an AI Agent
- Why Agents in Software Development
- How Agents Change Development
- Opportunities Unlocked
- Build an Al Agent (hands on)
- Considerations at Scale



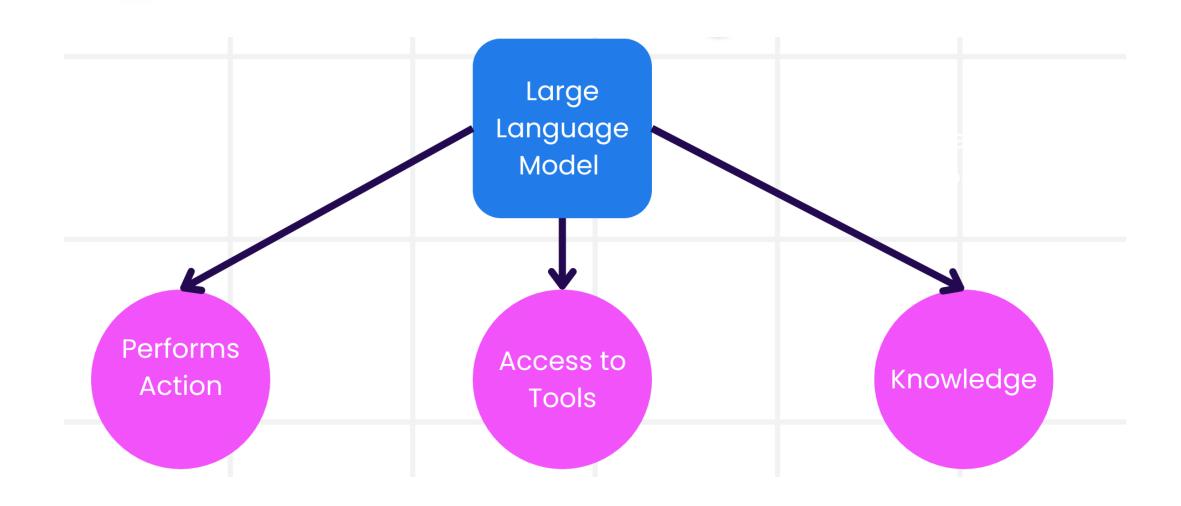
Nice to meet you! I'm Nick Miller







What is an Al Agent?





When to use AI Agents?

Open-Ended Problems

Multi-Step Processes Improvement Over Time

Why Agents in Software Development



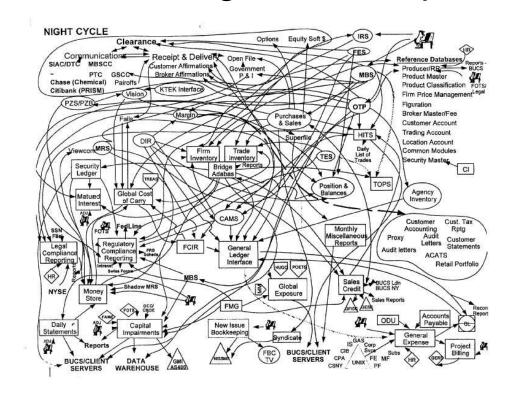
From SaaS to Al-Centric Orchestration

"The era of SaaS as we know it is coming to an end." Satya Nadella



The Problem They Solve

Process & Integration Complexity





A Real-World Example

Customer Support and Ticket Resolution

Traditional Solution



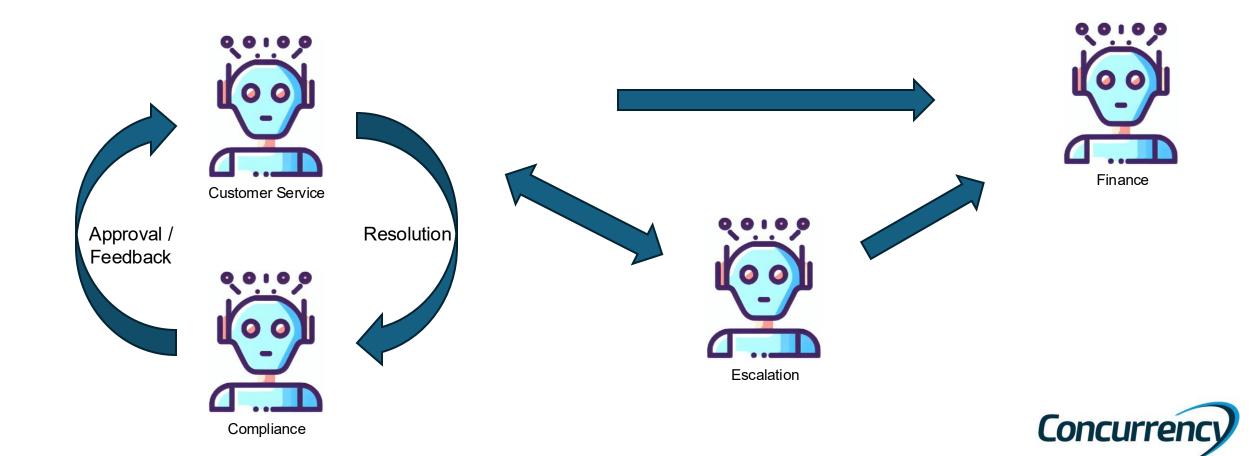








Multi-Agent Solution



How AI Agents Change Software Development



From Siloed SaaS Logic to Unified AI Orchestration Layers

SaaS tools as modular components called upon by AI agents
agents replacing workflow logic embedded within SaaS
products



Opportunities Unlocked



Al as a Force-Multiplier for every domain

Dynamic problem solving, process optimization, and innovating new workflows





The Competitive Advantage of Al Agents

Agility, Speed, and Efficiency

Hyper-customized experiences and products







Build an Agent





Set up resources

- 1. Install VS Code
- 2. Install VS Code Extensions
 - Python
 - Git
- 3. Clone git repo (or download .zip file)
 - <u>https://github.com/concurrencyinc/multiagentsystems</u>
- 4. Create virtual environment :
 - python -m venv .venv
 - .venv\Scripts\Activate
 - python -m pip install -r requirements.txt

Considerations at Scale



Challenges in Scaling Multi-Agent Systems

Performance Bottlenecks

Ethical Concerns

Agent Collaboration











Design For Scalability

Architecture

- Azure Al Agent Service
- Modular Design
- Visibility

Responsible Al

- Transparency
- Reliability
- Accountability
- Fairness
- Performance

Security Considerations

- Encryption, isolation, authentication, etc.
- Authentication for skills and data access



Closing Thoughts





When to use AI Agents?

Open-Ended Problems

Multi-Step Processes Improvement Over Time



How we can help:

- Secure AI for Everyone: Copilot Adoption and Momentum Assessment
- Anatomy of an Agent: Copilot Studio, Agent or Multi-Agent Discovery Session
- Executive AI Envisioning Session
- Bring the Event to You! We will present any topic/topics from our event at your organization.





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Thank you!