

Shopify Agentic AI Developer Bootcamp

Duration: 40 Hours

Audience: Experienced Shopify Developers (Shopify Partner Team)

Focus: Agentic AI, MCP, UCP, AI Commerce Agents, Mentoring & Code Reviews

Phase 1 – Shopify Refresher

Module 1: Shopify APIs & Development Refresher

- Shopify architecture recap
- Admin API, Storefront API & GraphQL overview
- OAuth & Webhooks refresher
- Products, Orders, Inventory, Metafields & Metaobjects
- Development store setup review
- Hands-on: API authentication, GraphQL queries and Storefront API

Phase 2 – Agentic AI Development (36 Hours)

Module 2: Agentic AI Fundamentals

- AI Applications vs AI Assistants vs AI Agents
- Agent architecture (Planning, Memory, Tools, Reasoning, Execution)
- Single-agent vs Multi-agent systems
- AI agent lifecycle
- Lab: Build your first AI agent

Module 3: LLM Integration for Shopify

- OpenAI Responses API
- Function Calling
- Structured Outputs
- Prompt Engineering
- Tool Calling
- Shopify integration
- Error handling
- Lab: AI Shopping Assistant

Module 4: Model Context Protocol (MCP)

- MCP architecture
- Clients, Servers & Tools
- Shopify Storefront MCP

- Catalog search, Cart & Checkout
- Security
- Lab: MCP-enabled shopping agent

Module 5: Universal Commerce Protocol (UCP)

- UCP overview
- Agent & Business Profiles
- Capability Negotiation
- Catalog, Cart, Checkout & Order APIs
- Lab: UCP shopping workflow

Module 6: Building Shopify AI Agents

- Shopping Agent
- Recommendation Agent
- Inventory Agent
- Customer Support Agent
- Marketing Agent
- Hands-on implementation

Module 7: Multi-Agent Commerce

- Planner, Search, Recommendation, Cart & Checkout Agents
- Agent Communication
- Memory Management
- Function Calling
- Lab: Multi-agent commerce

Module 8: Capstone Project

- Develop a real Shopify Agentic AI feature
- Architecture
- Implementation
- Testing
- Demonstration
- Code Review

Module 9: Mentoring & Code Review

- Architecture Review
- Code Review
- Prompt Optimization
- Performance Tuning
- Security Review
- Refactoring

Module 10: Final Assessment

- Team Presentations
- Working Demonstrations
- Technical Evaluation
- Feedback & Best Practices