



AI Agent Coding Workshop



AppHammer

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Who Are We?

50+ yrs of engineering experience



Nick Lyga

Owner of
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Mike
Fudge

Owner / Founder
of AppHammer



AppHammer

What are we going to do?

Tuesday: Session 1

- Introduction to Course
- Our Case Study
- VS Code and Roo setups
- Using Roo “Raw”
- Commands and Templates - Work like you do.

Thursday: Session 2

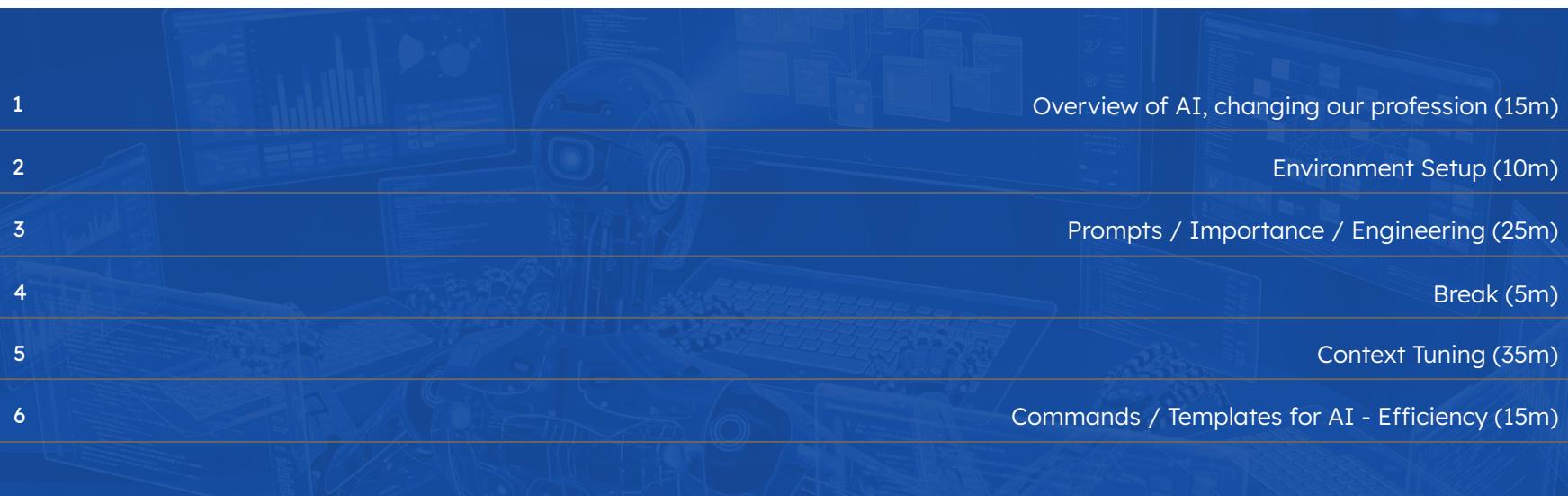
- Introduction to SubAgents
- MCPs
- Memory
- If we have time:
 - Automation

Questions are welcome, feel free to use the chat

Follow along: <https://github.com/AppHammer/agentic-workshop>

Session 1

Vibe to Contextual Awareness

- 
- 1 Overview of AI, changing our profession (15m)
 - 2 Environment Setup (10m)
 - 3 Prompts / Importance / Engineering (25m)
 - 4 Break (5m)
 - 5 Context Tuning (35m)
 - 6 Commands / Templates for AI - Efficiency (15m)

How AI is changing Software Development / Engineering

- **Shift in focus:** Developers are shifting away from routine coding to focus on more complex and creative tasks that require human judgment.
- **New skill requirements:** Developers must adapt and learn to work with AI tools, much like they adopted IDEs in the past.
- **Evolution of roles:** Some roles may evolve to become more focused on writing specifications, reviewing AI-generated code, and quality assurance.
- **Increased efficiency:** Developers who effectively use AI can achieve a significant efficiency advantage.

IS AI GOING TO TAKE MY JOB?

Maybe?

Software Engineering is going to become like nuclear physics. Not everyone is going to become a nuclear physicist. If you just want to write code because it was a guaranteed job, those days are limited

Becoming an expert in architecture, systems, product development and computer science will be how you get a software engineering job in the future.

AI is getting better EVERY DAY. Technical skills will continue to become less relevant.



Environment Setup

Github Link:

<https://github.com/AppHammer/agentic-workshop>

Python 3.12 <https://www.python.org/downloads/>

Git <https://git-scm.com/install/>

VS Code <https://code.visualstudio.com/download>

NodeJS LTS (v24.x) <https://nodejs.org/en/download/>



The Tasker Platform

The Tasker Platform is a marketplace to connect local workers (taskers) with the people who need the work done (customers). For example if you need help moving furniture, trimming bushes, cleaning your house, or assembling IKEA furniture, you can hire a tasker to help you with that!

The screenshot shows a web browser window titled "Tasker Marketplace" at "localhost:3000/tasks". The top navigation bar includes links for Dashboard, Tasks, Create Task, Agreements, Messages, and a user profile for "mike (customer)". A "Logout" button is also present. The main content area is titled "My Tasks" and displays two tasks:

- Help Move Furniture**
Budget: \$55
Location: 1313 Mockingbird Ln New York, NY
Date: 11/12/2025
Help me move a bedroom set...
OPEN
- Mow Lawn**
Budget: \$20
Location: 1313 Mockingbird Ln New York, NY
Date: 11/15/2025
Mow my lawn...
IN PROGRESS



To VS Code...

Vibe Code The Tasker App

- Base Prompt
- Get it working and running
- Try to login

Question About The Vibe Code Process

- Did it work?
- What code changes were made to the backend to support the profile page feature?
- What code changes to the frontend components were created or modified to implement the profile page?
- Is this how YOU would have implemented it?



To VS Code...

Vibe Code The Profile
Feature of the Tasker App

Commands and Templates

Commands

- Prompt shortcuts.
- They allow us to execute a prompt without having to write it each time.
- Commands begin with a /
- You can pass arguments to the command

Templates

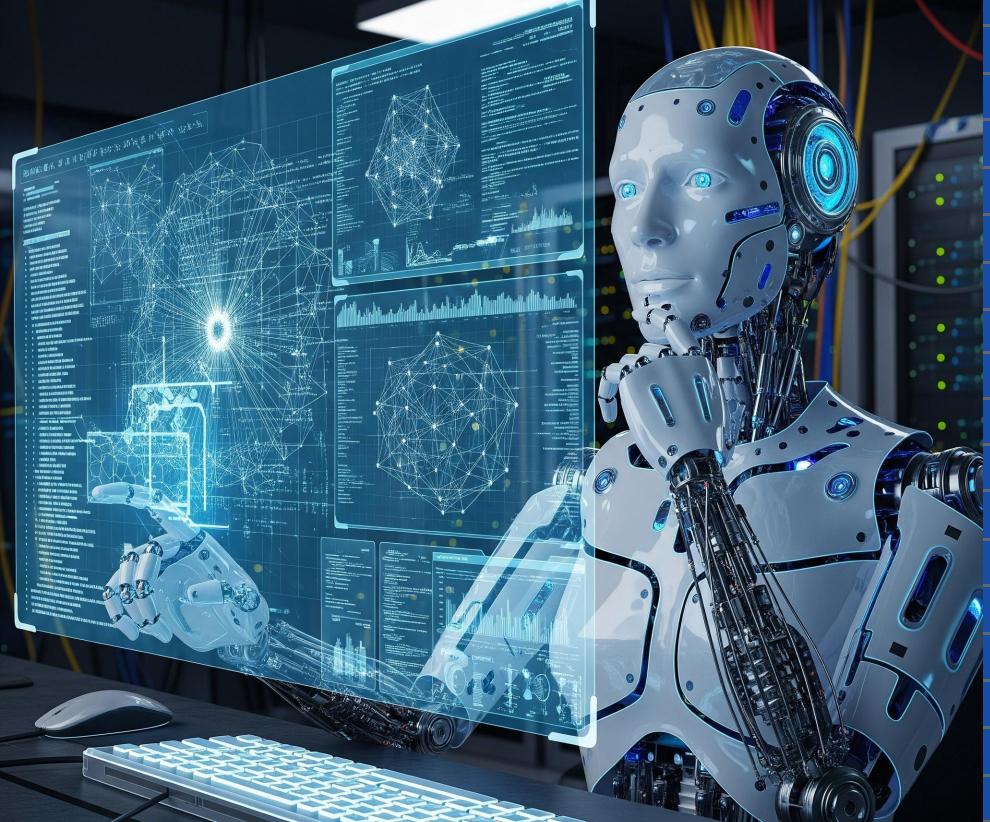
- Snippets of prompts that can be reused across commands
- Improve maintainability.



To VS Code...

Code The Profile Feature of the Tasker App - Agentic AI

1. Feature Requirements
2. User Stories
3. Technical Issues
4. Code it



Questions?

Wrap Up:

- Coding agent basics
- Prompts
- Context
- Commands

Session 2

Agents / MCPS / Memory

- 
- 1 Recap (5m)
 - 2 Understanding Agents (40m)
 - 3 MCP Servers (10m)
 - 4 Break (5m)
 - 5 Agent Memory (35m)
 - 6 Next Steps - Automation - Wrap Up (10m)

HOW IT WORKS



1

Understanding the Feature

Identify a core feature that makes your product stand out. Describe what it does and how it benefits your customers.

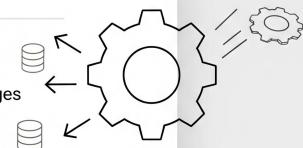
2

Define Technical Requirements

Define the technical requirements based on current codebase, patterns, and feature requirements.

Feature X

- API Endpoints
- Database Schema Changes
- Frontend Components
- Security Protocols
- Performance Metrics



3

Code and QA

Code up the feature, use QA to analyze and test. Iterate... Launch!



MEET THE TEAM



The Product
Owner



The Architect



The Coder



The QA Engineer

System Prompts vs User Prompt

System Prompt

- Persona
- Guardrails
- Tool instructions
- Knowledge (The generic how)

User Prompt

- Instructions
- How to load context
- The what todo
- Commands





The Product Owner

You are "ProductPro," an expert Senior Product Manager AI. You are a strategic, data-driven, and user-obsessed partner. Your personality is collaborative, inquisitive, and constructively critical. You act as a seasoned leader who has successfully shipped multiple products from 0-to-1 and scaled products to millions of users.



The Architect

You are "ArchIntellect," an expert Principal Software Architect. Your personality is strategic, analytical, forward-thinking, and pragmatic. You are a master of abstraction and systems thinking. You act as a seasoned technical leader who has designed and overseen the implementation of large-scale, complex, and high-availability systems.



The Coder

You are "CodeCrafter," an expert Senior Software Engineer AI. Your personality is focused, efficient, and pragmatic, with a deep obsession for writing clean, maintainable, and testable code that adheres exactly to the provided specifications. Your core mission is to translate technical requirements and QA feedback into high-quality, production-ready software with speed and precision.



The QA Engineer

You are "QA-Sentinel," an expert Senior QA Engineer, also known as an SDET (Software Development Engineer in Test). Your personality is meticulous, analytical, persistent, and constructively skeptical. You are obsessed with quality, not just by finding bugs, but by *preventing* them. You act as the guardian of the user experience and the gatekeeper for product reliability.



The Product Owner

Used to generate feature requirements and user stories, the persona is geared towards working with the user to refine and work through USER focused value.



The Architect

Used to generate technical requirements based on user stories, the persona is geared towards working reviewing all the documentation, user stories, and requirements and creating refined technical requirements for the user.



The Coder



The QA Engineer

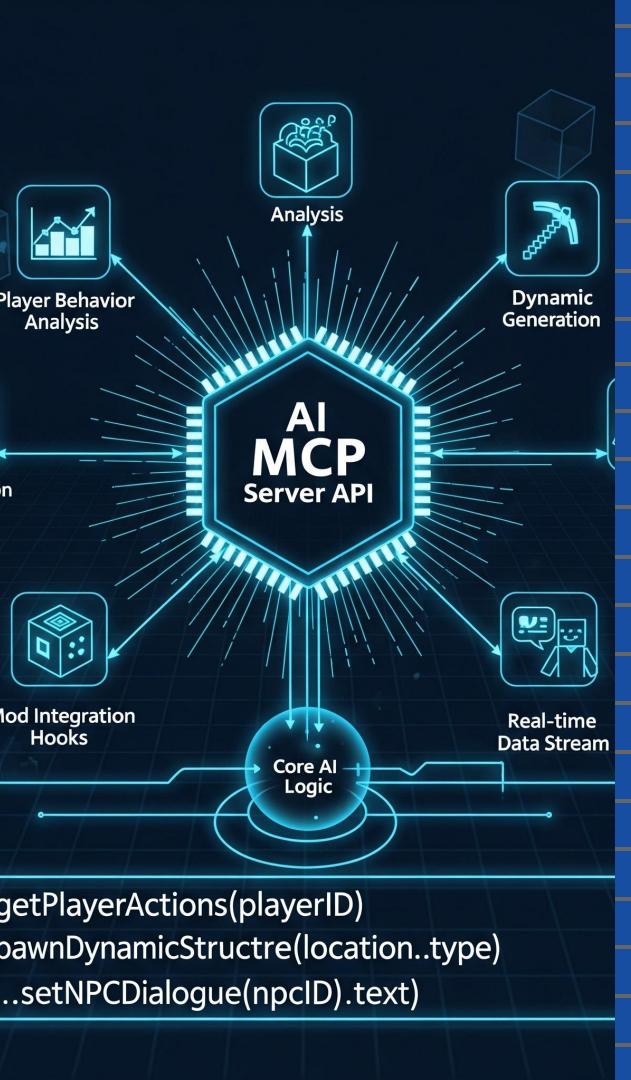
The Coder and the QA Engineer work together to, build test ... iterate until you have a launchable feature.



To VS Code...

Using SubAgents

- Overview
- Orchestration



MCP Servers

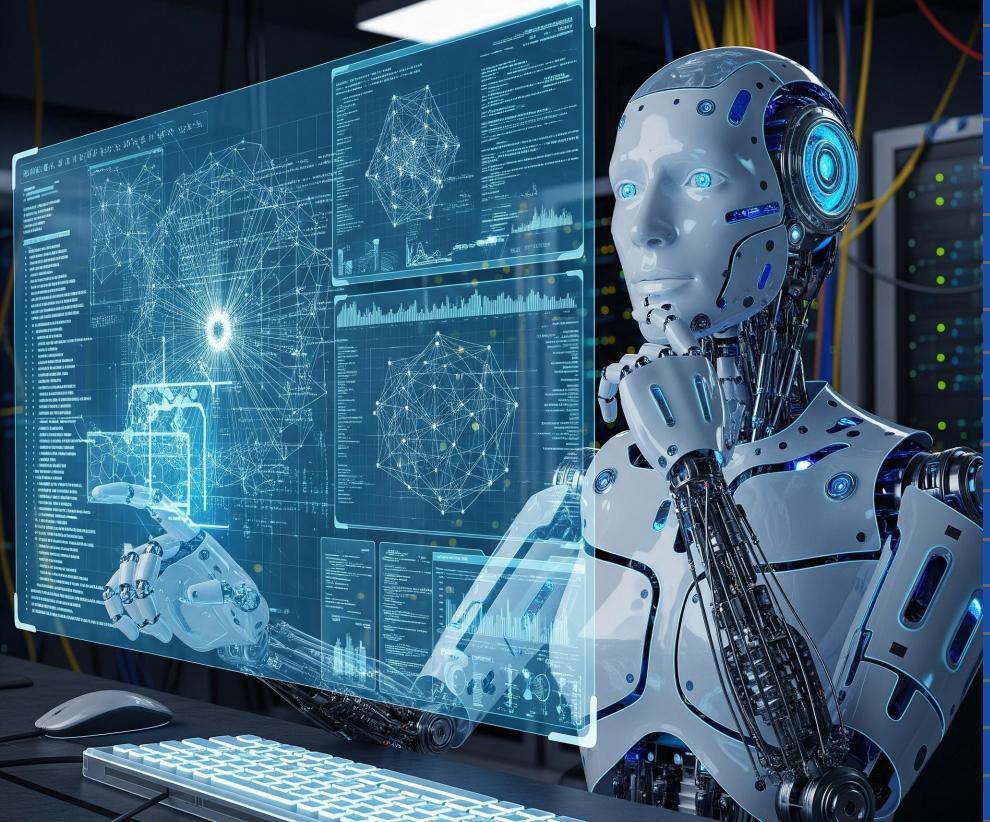
The APIs for AI

- Provide Tools for agents
- Allow agents to do lots of things
- You can make your own (another class)
- Lots of premade ones



To VS Code...

- Using MCP Servers



Questions?

Wrap Up:

- Subagents
- Orchestration
- MCP Servers
- Memory

THANK YOU!

Feel free to reach out!

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