

Slide 5: Software Developers - AI Integration Skills

Objective: Define specific AI capabilities required for software developers to integrate AI into applications and systems.

Layout Composition:

The slide is a flex-col with a header sized to its content, a main body that grows, and a footer sized to its content. The main body is a grid with two columns (2fr 1fr) and two rows (1fr 1fr). Left column spans both rows for core skills, top-right for tools, bottom-right for progression.

Content Breakdown:

- Block 1:
 - Block Type: Text
 - Placement: Header section
 - Component Schema: “Role Header”
 - Content:
 - Role_Title: “Software Developers”
 - Role_Icon: “Code”
 - Subtitle: “AI Integration & Development Skills”
 - Persona_Badge: “Primary: AI Worker”
 - Creative Brief: Title text-6xl with blue accent color (matching developer role). Icon inline with title. Persona badge as small chip/pill on the right. White text on gradient background.
- Block 2:
 - Block Type: Text
 - Placement: Left column spanning both rows
 - Component Schema: “Core Skills Breakdown”
 - Content:
 - Section_Title: “Core AI Capabilities”
 - Skill_Categories: {
 - “AI Service Integration”: {
 - “Icon”: “Plug”,
 - “Skills”: [
 - “Consume REST APIs from AI/ML services (AWS SageMaker, Azure AI, Google Vertex AI)”,
 - “Implement authentication and rate limiting for AI endpoints”,
 - “Handle asynchronous AI model inference”,
 - “Error handling for AI service failures and fallbacks”
 - “Model Integration”: {
 - “Icon”: “Brain”,
 - “Skills”: [
 - “Integrate pre-trained models (computer vision, NLP, recommendation)”,
 - “Implement prompt engineering for LLMs”,
 - “Fine-tune models using cloud-based tools”,
 - “Version control for model artifacts and configurations”

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    "Data Handling": {
      "Icon": "Database",
      "Skills": [
        "Prepare and transform data for AI/ML consumption",
        "Implement data validation and quality checks",
        "Manage training/inference data pipelines",
        "Handle sensitive data with privacy considerations"
      ]
    },
    "Responsible AI": {
      "Icon": "Shield",
      "Skills": [
        "Implement bias detection and mitigation strategies",
        "Build explainable AI interfaces",
        "Document model limitations and appropriate use",
        "Implement human-in-the-loop workflows"
      ]
    }
  }
}

```

- Creative Brief: Large card with slate-800 background. Four skill categories arranged vertically with clear visual separation. Each category has an icon, bold category name (text-2xl, blue accent), and bullet list (text-lg). Use consistent spacing between categories.

- Block 3:

- Block Type: Text
- Placement: Top-right cell
- Component Schema: “Tools & Platforms Card”
- Content:

Header: “Key Tools & Platforms”
 Icon: “Wrench”
 Categories: {
 “Cloud AI Services”: [“AWS SageMaker”, “Azure AI Services”, “Google Vertex AI”, “OpenAI API”],
 “Frameworks”: [“LangChain”, “Hugging Face”, “TensorFlow.js”, “ONNX Runtime”],
 “Dev Tools”: [“MLflow”, “Weights & Biases”, “DVC”, “GitHub Copilot”]
 }

- Creative Brief: Compact card, slate-700 background. Header with icon, text-xl. Three categories with items in smaller text (text-base). Clean, scannable list format.

- Block 4:

- Block Type: Text
- Placement: Bottom-right cell
- Component Schema: “Progression Path”
- Content:

Header: “Skill Progression”
 Icon: “TrendingUp”
 Levels: {
 “Foundation”: “Use pre-built AI APIs and services”,
 “Intermediate”: “Customize models, implement pipelines”,
 “Advanced”: “Develop AI models from scratch”
 }

"Advanced": "Architect AI-native applications, optimize performance"

}

- Creative Brief: Card matching Block 3 style. Three levels stacked vertically with progression indicator (dots or arrows). Each level in text-base with bold level name. Use gradient or color intensity to show progression.

- Block 5:

- Block Type: Text

- Placement: Footer

- Component Schema: "Simple Footer"

- Content:

Footer_Text: "Training estimate: 40-60 hours foundation | 80-120 hours intermediate | 160+ hours advanced"

- Creative Brief: Centered, text-base, opacity-70.