Verification Appendix

Automaton Auditor -- Verification Appendix

Summary:
- Extracted PDF text chunks: 11
- Detected rubric keywords present in the report:
  - BaseModel: ...nagement is foundational to multi-agent orchestration. The system uses Pydantic BaseModel classes to define structured outputs such asEvidenceand JudicialOpinio...
  - Dialectical Synthesis: ...text and performs keyword-based scanning for ar- chitectural concepts such as ?Dialectical Synthesis,? ?Fan-In / Fan-Out,? and ?Metacog- nition.? While this in...
  - DocAnalyst: ...Detective layer. From the START node, execution branches intoRepoInvestigatorandDocAnalystnodes concurrently. This parallel design avoids the bottleneck and fra...
  - EvidenceAggregator: ...e added in the final phase. 4 START RepoInvestigator DocAnalyst VisionInspector EvidenceAggregator (Fan-In) Prosecutor Defense Tech Lead ChiefJustice (Determini...
  - Fan-In: ...her?s outputs. This design decision p repares the architecture for true fan-out/fan-in swarm orchestration in later phases. Safe Tool Engineering Security and i...
  - Fan-Out: ...one another?s outputs. This design decision p repares the architecture for true fan-out/fan-in swarm orchestration in later phases. Safe Tool Engineering Securi...
  - Pydantic: ...state management is foundational to multi-agent orchestration. The system uses Pydantic BaseModel classes to define structured outputs such asEvidenceand Judic...
  - RepoInvestigator: ...t structure at the Detective layer. From the START node, execution branches intoRepoInvestigatorandDocAnalystnodes concurrently. This parallel design avoids the...
  - StateGraph: ...estration Ar chitecture The orchestration layer is implemented using LangGraph?sStateGraph. The interim ar- chitecture establishes a parallel fan-out structure...
  - TypedDict: ...s such asEvidenceand JudicialOpinion. The global graph state is defined using a TypedDict schema that explicitly declares all state fields. Plain Python diction...
  - VisionInspector: ...is layers will be added in the final phase. 4 START RepoInvestigator DocAnalyst VisionInspector EvidenceAggregator (Fan-In) Prosecutor Defense Tech Lead ChiefJu...
  - git log: ...nalysis The interim implementation extracts commit history using the command: 2 git log --oneline --reverse This allows the system to analyze development progre...
  - operator.add: ...utputs at every stage of execution. Additionally, reducers are implemented usingoperator.addandoperator.iorwithin Annotated type hints. These reducers ensure th...
  - operator.ior: ...stage of execution. Additionally, reducers are implemented usingoperator.addandoperator.iorwithin Annotated type hints. These reducers ensure that parallel age...
  - tempfile.TemporaryDirectory: ...ons such as cloning external repositories. The repository cloning mechanism usestempfile.TemporaryDirectory() to sandbox all cloned content. Git operations are...

Repository files present (verified in workspace):
 - src/state.py: FOUND
 - src/tools/repo_tools.py: FOUND
 - src/tools/doc_tools.py: FOUND
 - src/nodes/detectives.py: FOUND
 - src/graph.py: FOUND

Recommendation:
- Add explicit file path citations and small code snippets in the PDF for stronger cross-reference evidence.
- Include `src/nodes/judges.py` and ChiefJustice details if implemented, or state as future work.