x_make_contract_validators_x â€” Evidence-Grade JSON Contract Auditor

This package enforces JSON schema discipline across every payload we ship. Feed it a schema, pass a candidate document, and it delivers crisp validation evidence ready for orchestrator logs or Change Control dossiers.

Mission Log

- Load Draft 2020-12 JSON Schemas and verify they compile cleanly before execution.
- Validate payloads against the declared schema with human-readable failure diagnostics.
- Offer both Python APIs and a CLI front line for batch validation or scripted CI runs.
- Emit structured summaries suitable for ingestion by orchestrator progress boards and release reporters.

Instrumentation

- Python 3.11 or newer.
- `jsonschema` 4.21 or later for Draft 2020-12 support.
- Optional QA: Ruff, Black, MyPy, Pyright, pytest.

Operating Procedure

1. `python -m venv .venv`
2. `\.venv\Scripts\Activate.ps1`
3. `python -m pip install --upgrade pip`
4. `pip install -r requirements.txt`
5. `python -m x_make_contract_validators_x --schema schema.json --payload payload.json`

The CLI exits with `0` on success. Failure reports include the offending path, schema location, and a short message ready for Change Control entries.

Evidence Checks

Check	Command
Formatting sweep	`python -m black .`
Lint interrogation	`python -m ruff check .`
Type audit	`python -m mypy .`
Static contract scan	`python -m pyright`
Functional verification	`pytest`

Reconstitution Drill

During the monthly rebuild I validate a representative payload suite: one that passes, one that fails schema compilation, and one that fails payload validation. Results flow into Change Control to prove the guardrails are intact.

Conduct Code

Every schema update or CLI enhancement must land with tests, documentation adjustments, and captured evidence. No silent behaviour shifts.

Sole Architect's Note

These validators are my bladeâ€”sharpened to keep pipelines honest. They distill the shared helper into a focused package with the same zero-compromise tone you expect from the command deck.