

# GitHub Project Redesign - Documentation

## Repository Architecture, Guidelines, and Templates

### Repository Layout

```
object-detection-ai/
├── .github/
│   ├── workflows/
│   ├── ci.yml
│   └── release.yml
├── ISSUE_TEMPLATE/
│   ├── bug_report.md
│   └── feature_request.md
├── PULL_REQUEST_TEMPLATE.md
├── docs/
├── src/objdet/
├── notebooks/
├── tests/
├── experiments/
├── scripts/
├── models/
├── data/
├── examples/
├── .gitignore
├── pyproject.toml
├── README.md
├── CONTRIBUTING.md
├── CODE_OF_CONDUCT.md
├── SECURITY.md
├── CHANGELOG.md
├── LICENSE
├── requirements.txt
└── tox.ini
```

### Branching & Commits

- Branches:
  - main (stable)
  - develop (integration)
  - feature/<name>, hotfix/<name>
- Semantic Versioning: MAJOR.MINOR.PATCH
- Conventional Commits:
  - feat, fix, docs, chore, refactor

### CI/CD

- GitHub Actions: ci.yml for testing, linting, formatting
- release.yml for publishing packages / GitHub releases
- Test matrix: Python 3.8–3.11

### Contribution Guidelines

1. Fork repo → branch → PR
2. Run linting & tests locally

3. Write unit tests for new features
4. Use Black for formatting, Flake8 for linting
5. Follow PR & issue templates

### **Key Files**

- README.md: Overview, installation, usage, contribution
- LICENSE: MIT or similar
- CONTRIBUTING.md: workflow & coding style
- CODE\_OF\_CONDUCT.md: Contributor Covenant
- SECURITY.md: reporting process
- CHANGELOG.md: version history