Project Documentation

# 1. Project Overview

This project is a personal portfolio system that combines:  
- A frontend website (HTML, CSS, Bootstrap) hosted on GitHub Pages.  
- A backend management tool (Python scripts) that integrates Google Drive for file storage and Google Sheets as a temporary database.  
  
The goal is to create a secure, maintainable, and dynamic portfolio that can be updated easily without manually editing website code.

# 2. Objectives

- Provide a single-page portfolio website showcasing:  
 - About section  
 - Achievements  
 - Resume (view + download)  
 - Projects  
 - Contact information  
- Maintain a local backend system to:  
 - Upload files (resume, projects, certifications) to Google Drive.  
 - Store and manage metadata (file links, categories) in Google Sheets.  
- Ensure sensitive credentials are protected and never exposed in the public GitHub repository.

# 3. Technology Stack

- Frontend:  
 - HTML5, CSS3, Bootstrap 5.3.x  
 - Optional JavaScript (for dynamic updates from Sheets)  
 - GitHub Pages (hosting)  
  
- Backend (local only):  
 - Python 3.x  
 - Google Drive API (storage)  
 - Google Sheets API (metadata)  
  
- Configuration & Security:  
 - .env file for sensitive IDs (Sheet ID, Drive folder ID)  
 - .gitignore to exclude client\_secret.json, token.pickle, .env  
 - Documentation stored in docs/

# 4. High-Level Flow

1. Local Backend (Content Management):  
 - Run Python script (portfolio.py) to upload a file (e.g., resume).  
 - drive\_manager.py uploads the file to Drive → returns link.  
 - sheet\_manager.py logs the link + metadata into Sheets.  
  
2. Frontend (Portfolio Website):  
 - index.html provides sections (About, Achievements, Resume, Projects, Contact).  
 - Resume section links to the latest Drive URL.  
 - Projects & Achievements sections can be populated dynamically from Sheets (via JS) in future phases.  
  
3. Hosting:  
 - Frontend lives on GitHub Pages (safe, no credentials).  
 - Backend runs only on local machine for updates.

# 5. File Structure (Planned)

portfolio-project/  
│  
├── frontend/  
│ ├── index.html  
│ ├── css/style.css  
│ ├── js/script.js  
│ └── assets/  
│  
├── backend/  
│ ├── portfolio.py  
│ ├── drive\_manager.py  
│ ├── sheet\_manager.py  
│ └── utils.py  
│  
├── docs/  
│ ├── setup.md  
│ ├── workflow.md  
│ └── changelog.md  
│  
├── .env.example  
├── .gitignore  
├── requirements.txt  
└── README.md

# 6. Security Notes

- Credentials (client\_secret.json, token.pickle, .env) must never be uploaded to GitHub.  
- Public repo contains only safe code, docs, and frontend.  
- Each contributor must configure their own Google API credentials locally.