# Design Overview for ***Resume Updater***

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# Summary of Program

The **Resume Updater** is a Python-based automation tool designed to update my personal website's resume section (resume.html) by extracting content from a .docx resume file. This program enables efficient, error-free, and consistent updates to online resumes directly from a centralised, editable document.

It reads structured content (e.g., Education, Experience, Projects) from the .docx file, parses it using predefined rules, converts it to valid JSON, replaces corresponding sections in the resume.json file, and finally pushes the changes to my GitHub repository using Git commands. This allows me to maintain my resume in Word format while ensuring my website’s resume page remains updated with minimal effort.

The project is of reasonable complexity, includes multiple Python files (modular structure), uses data classes, Enums, functional decomposition, abstraction, file I/O, error handling, and GitHub integration.

# Required Data Types

Table : **ResumeSection (Data Class)** details

|  |  |  |
| --- | --- | --- |
| Property | Type | Notes |
| section\_type | str | The type of section (e.g., "Education", "Experience", "Skills", etc.) |
| entries | List[Dict] | List of dictionaries containing the entries for this section |
| section\_type | SectionType | An enum representing the type of different sections |

Table 2: **ResumeDocument (Data Class)** details

|  |  |  |
| --- | --- | --- |
| Property | Type | Notes |
| file\_path | str | File path of the updated .docx resume |
| Sections | Dict[str,ResumeSection] | Dictionary mapping section types to ResumeSection objects |

Table 1: **File Type (Enum)** details

|  |  |  |
| --- | --- | --- |
| Member name | Member value | Notes |
| DOCX | “docx” | Microsoft Word Document |

Table 2: **Section Type (Enum)** details

|  |  |  |
| --- | --- | --- |
| Member name | Member value | Notes |
| EDUCATION | “Education” | Education related resume section |
| EXPERIENCE | “Experience” | Work experience related section |
| SKILLS | “Skills & Interests” | Skills & Interests related resume section |
| PROJECTS | “Projects” | Projects related resume section |
| LEADERSHIP | “Leadership & Activities” | Leadership & Activities related resume section |

# Overview of Program Structure

|  |  |  |  |
| --- | --- | --- | --- |
| Module or class | Name | Return type | Description |
| main.py | main() | None | Main code of the program, handles user input, runs the update with error handling |
| parser.py | parse\_docx() | dict | Parses .docx and return the structured data as a dictionary |
| git\_utils.py | commit\_and\_push() | None | Commits and push changes to GitHub |
| enums.py | File Type, Section Type | Enum | Enums used to define the types and section types |
| section\_data.py | ResumeSection, ResumeDocument | dataclass | Data structures representing resume sections and the complete resume document |