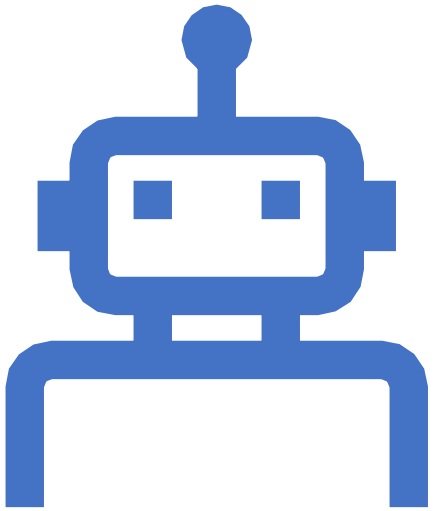
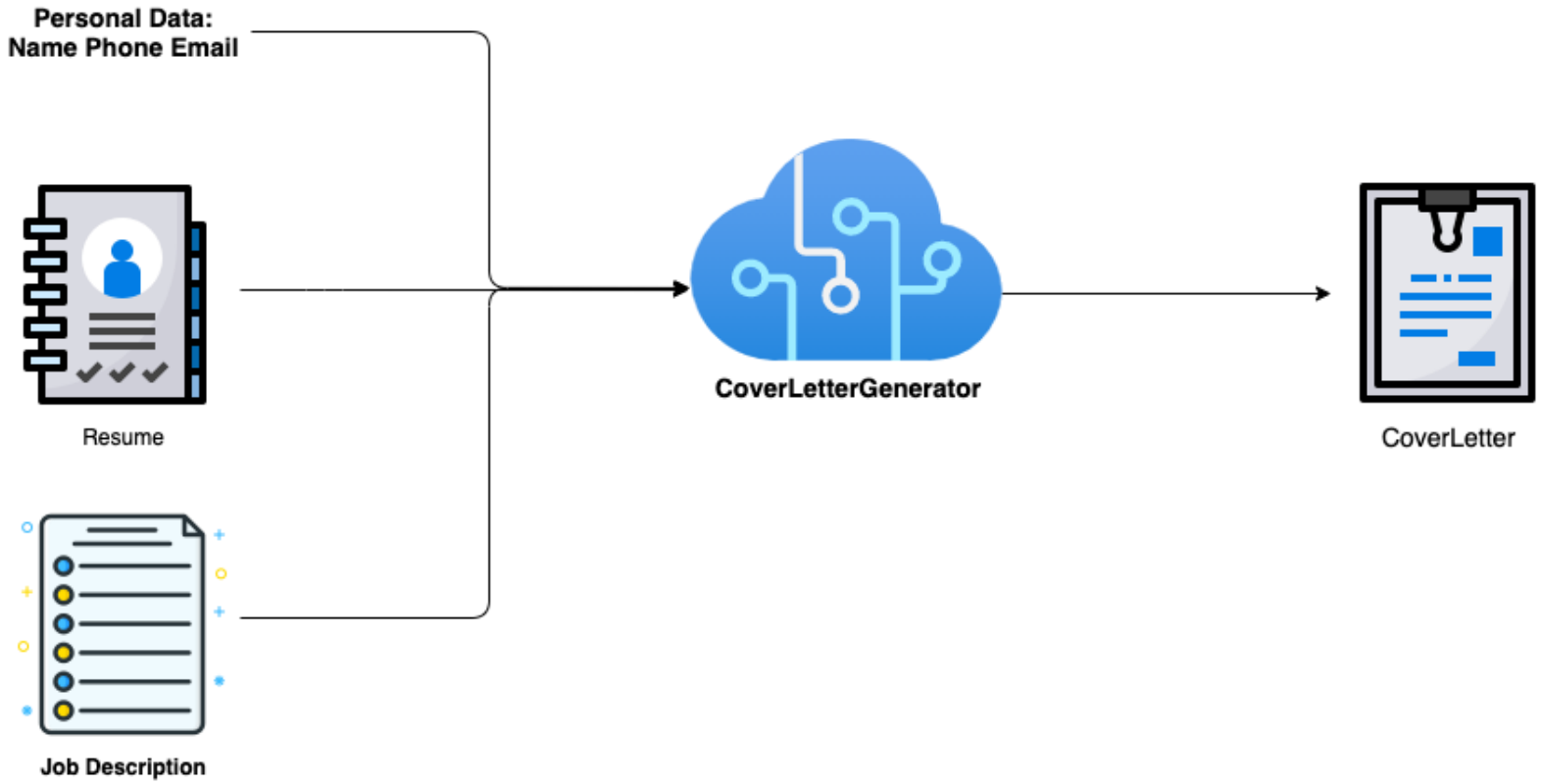


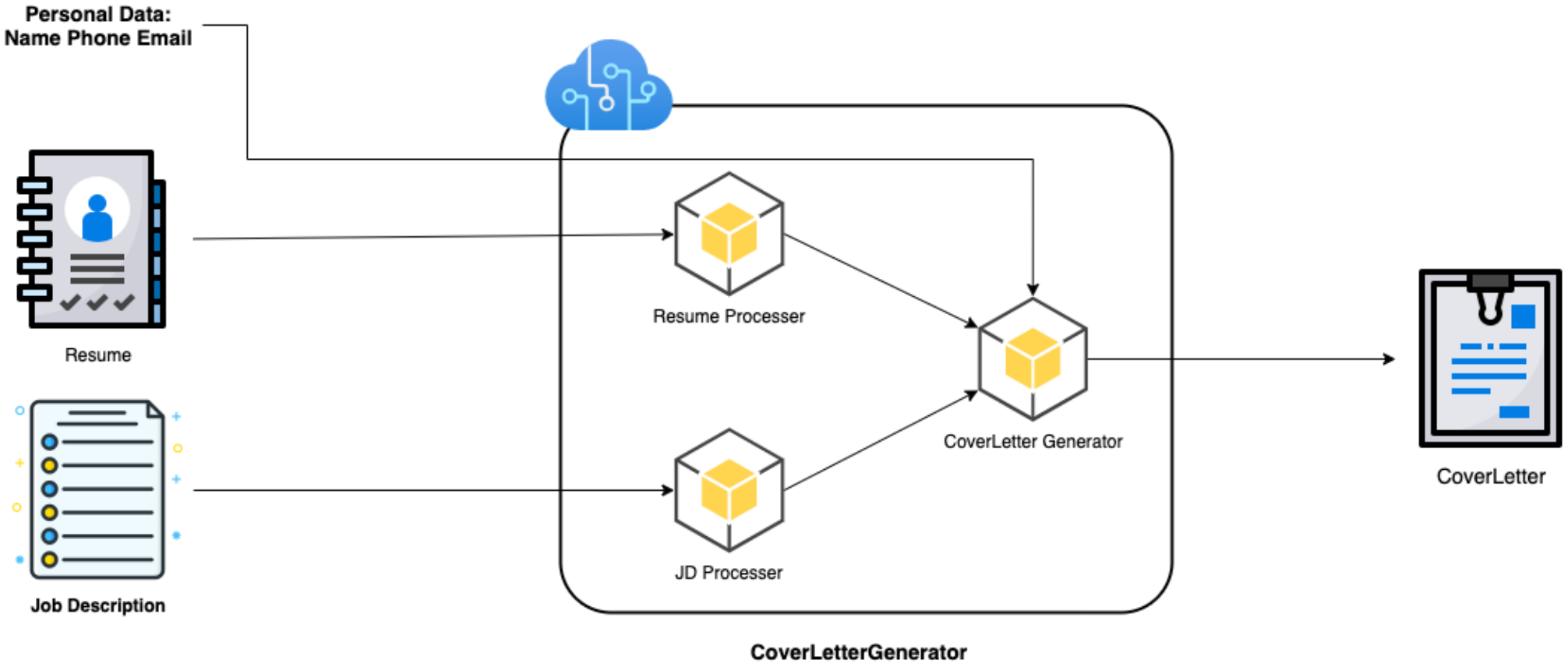
Virtual Job Assistant

Overview



Unstructured Data ⇒ Structured Data ⇒ Unstructured Data

“Unboxing”



Unstructured Data ⇒ Structured Data ⇒ Unstructured Data

Extract
- Name
- Phone Number
- Email
- Work Experience (duration description)

Resume Processer

Job Description Processer

Extract
- Job Role/Responsibilities
- Job Requirements (skills)

(JSON/Dictionary format Data)

Resume Structured Data

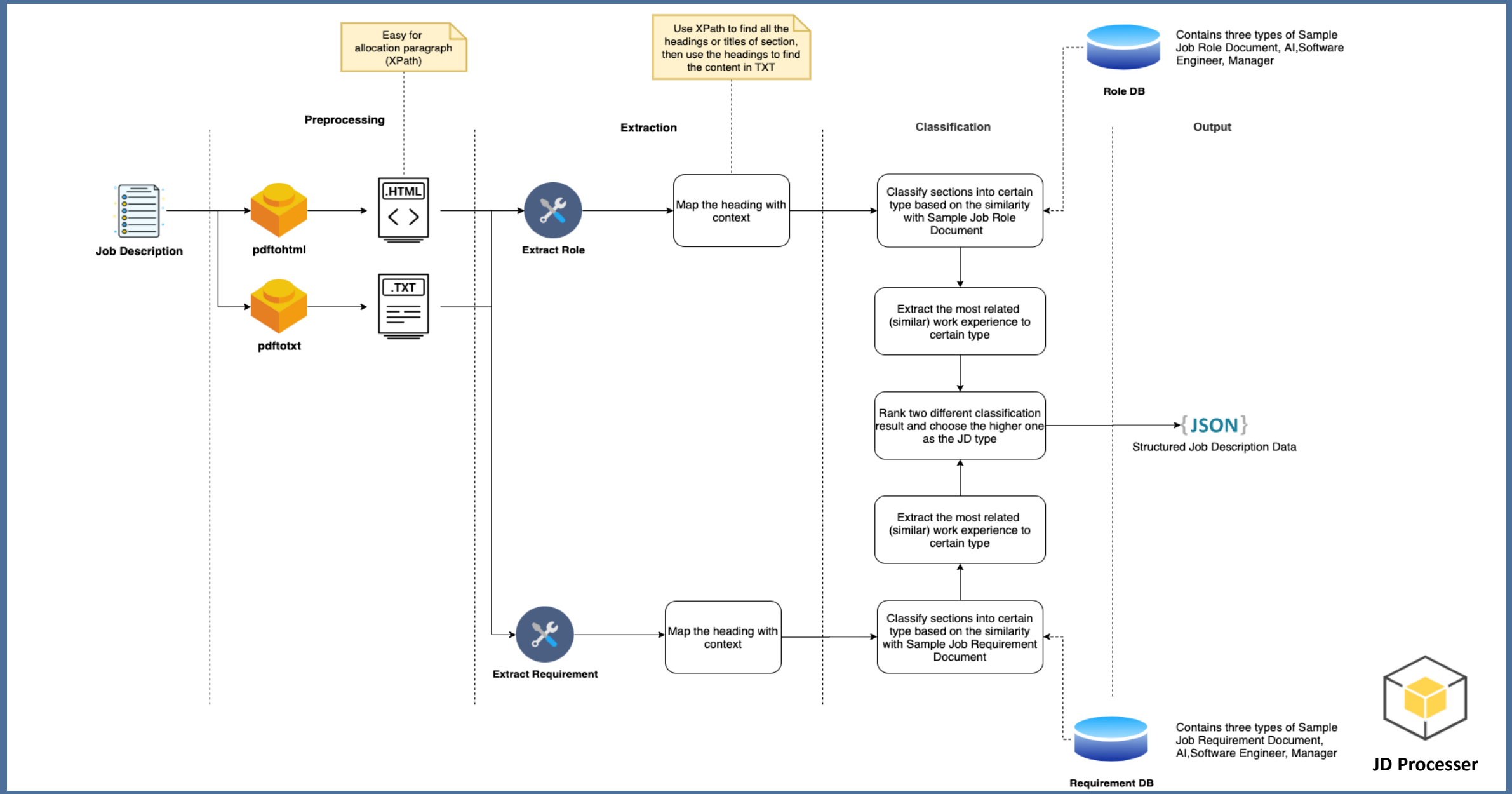
Job Description Structured Data

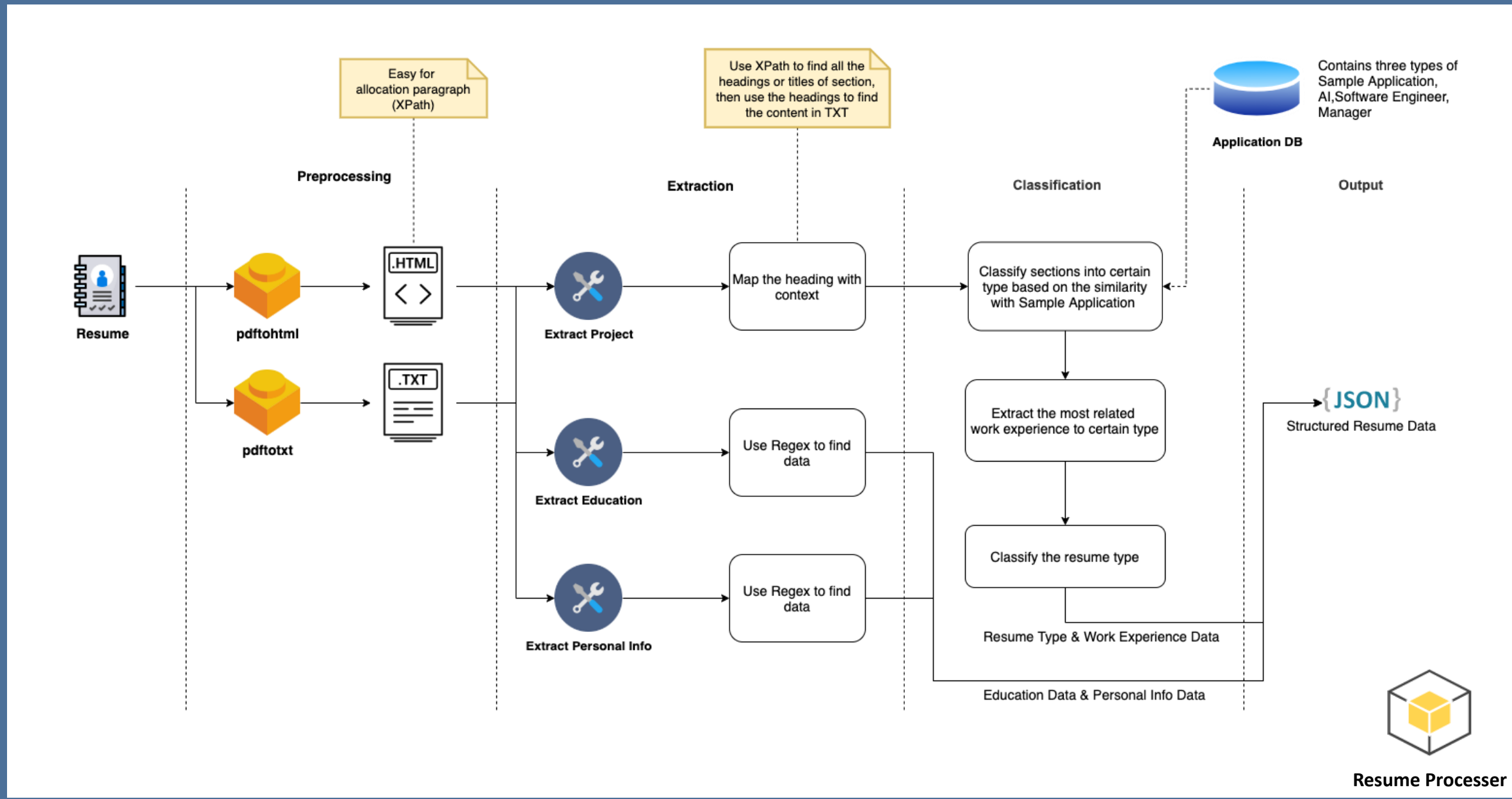
Cover Letter (CL) Generator

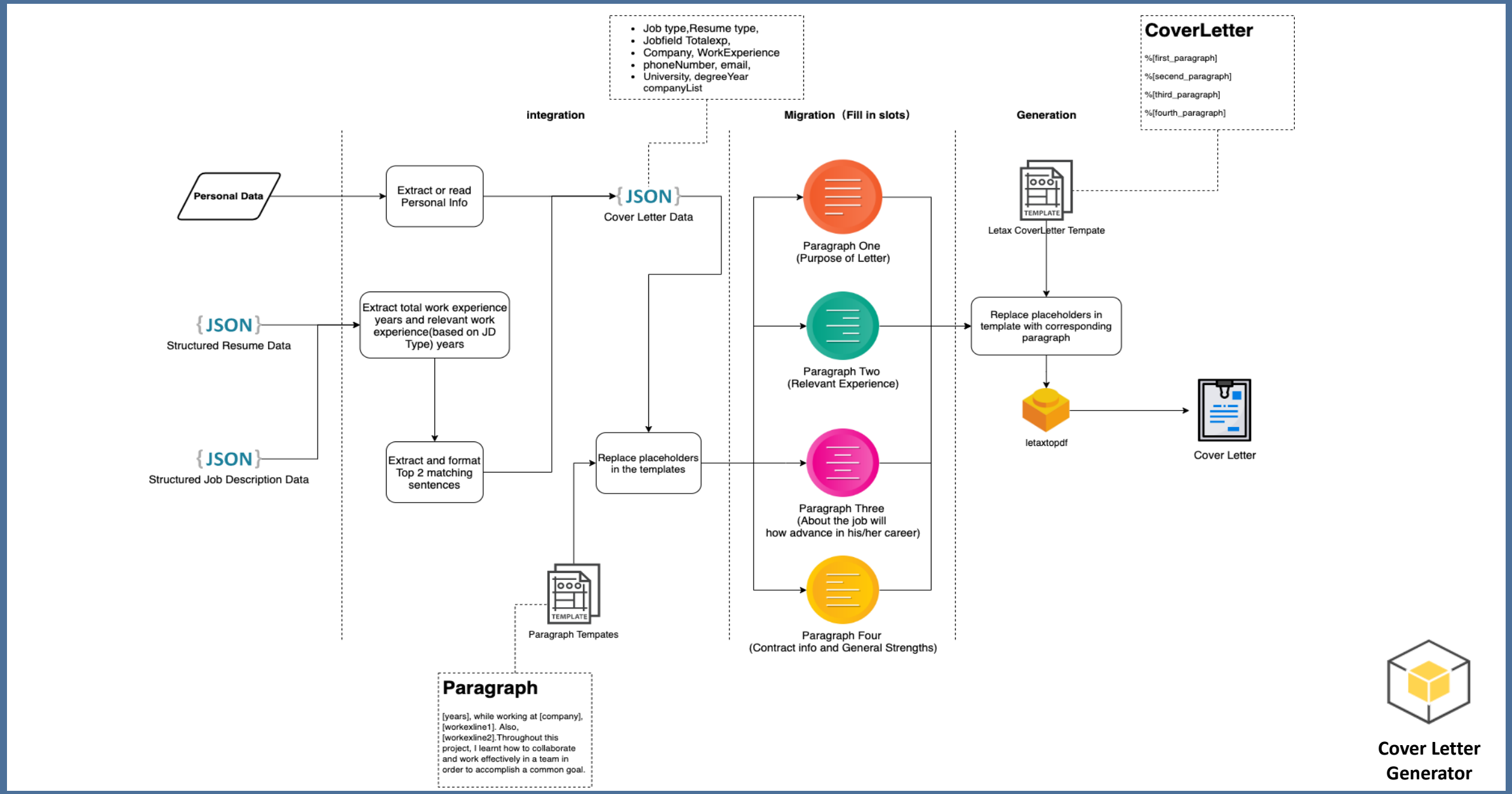
Filter
- Most relevant job description/advertisements based on resume

Extract
- Most relevant work/project experience of resume to the filtered/matched Job Description

Generate
- Fill in the extracted resume data to the CL template


Easy for allocation paragraph (XPath)
Use XPath to find all the headings or titles of section, then use the headings to find the content in TXT
Contains three types of Sample Job Role Document, AI,Software Engineer, Manager
Role DB
Preprocessing
Extraction
Classification
Output
Job Description
pdftohtml
.HTML
pdftotxt
.TXT
Extract Role
Map the heading with context
Classify sections into certain type based on the similarity with Sample Job Role Document
Extract the most related (similar) work experience to certain type
Rank two different classification result and choose the higher one as the JD type
{JSON}
Structured Job Description Data
Extract the most related (similar) work experience to certain type
Extract Requirement
Map the heading with context
Classify sections into certain type based on the similarity with Sample Job Requirement Document
Contains three types of Sample Job Requirement Document, AI,Software Engineer, Manager
Requirement DB
JD Processer


Easy for allocation paragraph (XPath)
Use XPath to find all the headings or titles of section, then use the headings to find the content in TXT
Contains three types of Sample Application, AI,Software Engineer, Manager
Application DB
Preprocessing
Extraction
Classification
Output
Resume
pdftohtml
pdftotxt
.HTML
.TXT
Extract Project
Extract Education
Extract Personal Info
Map the heading with context
Use Regex to find data
Use Regex to find data
Classify sections into certain type based on the similarity with Sample Application
Extract the most related work experience to certain type
Classify the resume type
Resume Type & Work Experience Data
Education Data & Personal Info Data
{JSON}
Structured Resume Data
Resume Processer


Job type,Resume type,
Jobfield Totalexp,
Company, WorkExperience
phoneNumber, email,
University, degreeYear
companyList
CoverLetter
%[first_paragraph]
%[secend_paragraph]
%[third_paragraph]
%[fourth_paragraph]
integration
Migration（Fill in slots）
Generation
Personal Data
Extract or read Personal Info
JSON
Cover Letter Data
TEMPLATE
Letax CoverLetter Tempate
Paragraph One
(Purpose of Letter)
JSON
Structured Resume Data
Extract total work experience years and relevant work experience(based on JD Type) years
Paragraph Two
(Relevant Experience)
Replace placeholders in template with corresponding paragraph
JSON
Structured Job Description Data
Extract and format Top 2 matching sentences
Replace placeholders in the templates
letaxtopdf
Cover Letter
Paragraph Three
(About the job will how advance in his/her career)
TEMPLATE
Paragraph Tempates
Paragraph Four
(Contract info and General Strengths)
Paragraph
[years], while working at [company], [workexline1]. Also, [workexline2].Throughout this project, I learnt how to collaborate and work effectively in a team in order to accomplish a common goal.
Cover Letter Generator

Thank you