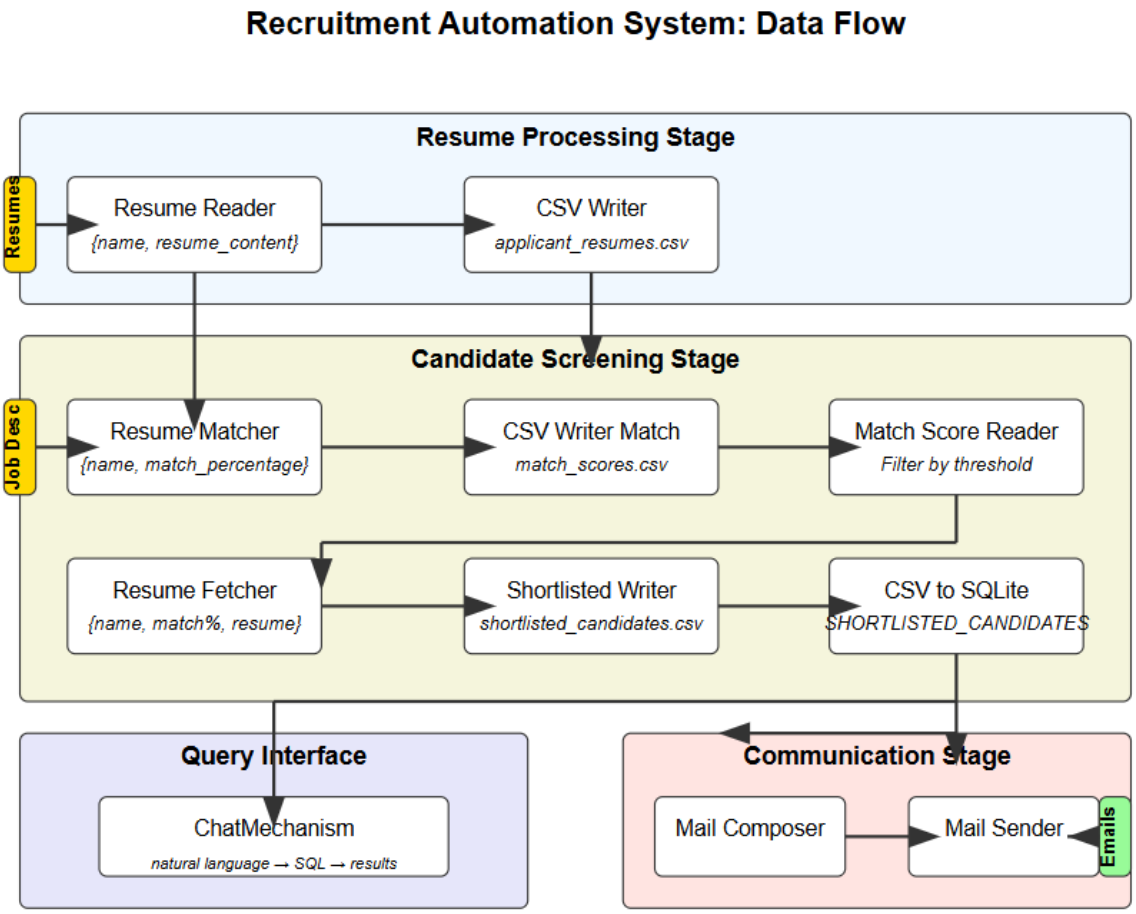
High-Level Data Flow in the Recruitment Automation System



Overall Process

The recruitment system processes data through four major stages, with information becoming more refined at each step:

1. **Resume Collection Stage**
2. **Candidate Evaluation Stage**
3. **Database & Query Stage**
4. **Communication Stage**

Data Flow Between Components

Initial Input

- **Starting Point**: Collection of resume files in a folder
- **Job Description**: Provided by the recruiter

Resume Collection Flow

- Raw resume files → Resume Reader → Structured text data
- Structured text data → CSV Writer → Centralized resume repository (CSV file)

Candidate Evaluation Flow

- Resume repository + Job Description → Resume Matcher → Match percentage scores
- Match scores → CSV Writer Match → Score database (CSV file)
- Score database → Match Score Reader → Filtered candidate list
- Filtered list + Resume repository → Resume Fetcher → Enhanced candidate profiles
- Enhanced profiles → Shortlisted Writer → Comprehensive candidate database (CSV file)
- Comprehensive CSV → SQLite Agent → Queryable relational database

Query Interface Flow

- User natural language question → Query processor → SQL query
- SQL query → Database → Raw results
- Raw results → Response formatter → Human-readable answers

Communication Flow

- Selected candidates + Interview details → Mail Composer → Personalized email drafts
- Email drafts → Mail Sender → Delivered communications

Key Data Transformations

1. Unstructured resume text → Structured candidate data
2. All candidates → Scored candidates → Filtered candidates
3. Basic candidate info → Enriched profiles with contact details and skills
4. Database records → Actionable recruitment insights
5. Candidate information → Personalized communications

This flow ensures that raw resume data is systematically processed, evaluated, filtered, and leveraged to connect with the most qualified candidates, with each component adding value to the information before passing it to the next stage.