FTEC 5660 HW2 part1 Report

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Agent design and architecture

- Use Langraph to design the organize, search, and investigate nodes.
- The organize_node structures the original PDF text into JSON fields.

```
{
  "personal_info": {
    "name": <string>,
    "professional_summary": <string>,
    "locations": ["<string>", ...]
  },
  "education": [
    {
      "institution": <string>,
      "degree": <string>,
      "graduation_year": <string>
    },
    ...
  ],
  "experience": [
    {
      "company": "<string>",
      "job_title": "<string>",
      "period": "<string>",
      "responsibilities": ["<string>", ...]
    },
    ...
  ],
  "skills": ["<string>", "..."],
}
```

- `search_node` first uses `search_linkedin_people(name, location, industry)` to obtain candidates, then uses LLM to compare the candidate profiles with their LinkedIn information, selecting the best candidates, and finally uses `get_linkedin_profile` to obtain the candidate profiles.
- `investigate_node` compares the LinkedIn profiles and LinkedIn data using the following criteria to derive a credibility score.

```
1. Core Resume Falsification (High, -0.3): The company listed on the CV
does not exist on LinkedIn.
2. Education Falsification (High, -0.3): The school or degree is
seriously inconsistent.
3. Exaggerated Job Title (Medium, -0.15): The CV states Senior/Director,
but LinkedIn lists it as Junior/Parallel.
4. Exaggerated Work Hours (Medium, -0.15): The work hours listed on the
CV do not match those on LinkedIn.
5. Overstated Skills (Low, -0.05): The core skills listed on the CV do
not match those on LinkedIn.
```

Final scores: