Summary Sheet: Job Search Engine

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1 Project Description

The Job Search Engine is a software development project. This web app will perform two main features: It will present users with the most in-demand skills and requirements from employers in their area, and it will show users the jobs in their area that they are most compatible with based on their skills and experience. The project focuses specifically on jobs in the computer science field. The project is designed to make it easier for those in computer science and related fields to strengthen their résumé and/or find employment in their area.

2 Resources and Tools

The project will be developed using Python and JavaScript, with PostgreSQL for the database (for storing user and job data), Django for the back-end (for performing automatic scraping and compatibility calculation), React for the front-end (for displaying the user interface and data aggregation), and Node.js for the JavaScript runtime.

The project will be programmed primarily in Python and JavaScript. The project will use the JobSpy Python library to scrape data from popular job-searching websites. The project will use the Chart.js and Leaflet libraries to display charts and choropleth maps. Asana will be used to manage the project.

3 Processes and Deliverables

This project will be developed using the waterfall methodology, since project requirements are not likely to change in the span of development. Focusing entirely on the most fundamental components (web scraping, keyword extraction) first also gives us time to modify the project scope in case issues arise.

Deliverables include the completed, locally-hosted web app, its associated documentation, and a poster presentation about the project.