1. Interview Note:
    a. Person interviewed: Qiuyang Wang
        i. He is a graduate student at CU majoring in computer science. He is graduating and looking for jobs mainly on the west coast.
    b. Benefit from visualization:
        i. Typically, each job has different skill requirements, work experience, and salary packages, and it can be time consuming to click through each job posting. If you can visualize this information, you can filter out jobs that don't fit/do not want to go, thus greatly reducing the time takes to find a job
    c. How often/ where/ why do the task:
        i. In order to find a job he likes/ interested in,he usually does the task on the job searching websites like Handshake, Indeed through his desktop at home.
        ii. Frequency: no special frequency, usually look at it when work/study is tired
    d. data Used to Perform the Task:
        i. By collecting recruitment information from recruitment websites, and filtering out suitable jobs for Qiuyang.
    e. How do they perform the task now, when they don't have a visualization:
        i. When there is no visualization, Qiuyang usually clicks on every job information on the West Coast to see if the requirement and salary meet his expectations.

Task Description:
My friend Qiuyang is graduating this semester. He is looking for jobs related to his major(computer science) on the west coast. He usually looks for job postings on some recruitment websites, and clicks on postings to view the skill requirements and salary ranges. However, for many computer science related jobs, some years work experience is required. As a recent graduate without a lot of work experience, clicking through every job posting on the site can be time-consuming work. So these two visualizations are designed to help him filter out posts that don't fit his needs.

In order to better help my friend Qiuyang to find a job, since he is a new graduate student without much work experience, here we assume that all the data used are entry-level.

1. The first visualization below is a map visualization using the west coast map (filled with green). The reason I choose to use this visualization method is because a map can help Qiuyang intuitively find out the work areas.
   In addition to that, to differentiate between each computer science related job type, there are 4 different icons representing 4 different job types: triangles represent data engineering jobs, circles represent software development engineering, stars represent test engineers, and squares represent cyber security related jobs. Also, users can see the salary range according to the shade of the icon color (60000-120000). In simple terms, the darker the color of the icon means the higher the salary of the job and the lighter color means that the salary of the job is close to the lowest level.
   In order to show more details about the job, users can click on each icon in the graph to view the details of the job include: work address, skill requirements, salary range and work shifts. Through this information, users can more easily find the desired job that meets their own requirements.

2. The second visualization is a bridge plot that shows skill requirements for each job category. The reason for this diagram is that for different computer science

related jobs, there are usually different skill requirements. Thus, through this bridge visualization, users can intuitively figure out the skills they need to apply for this job.

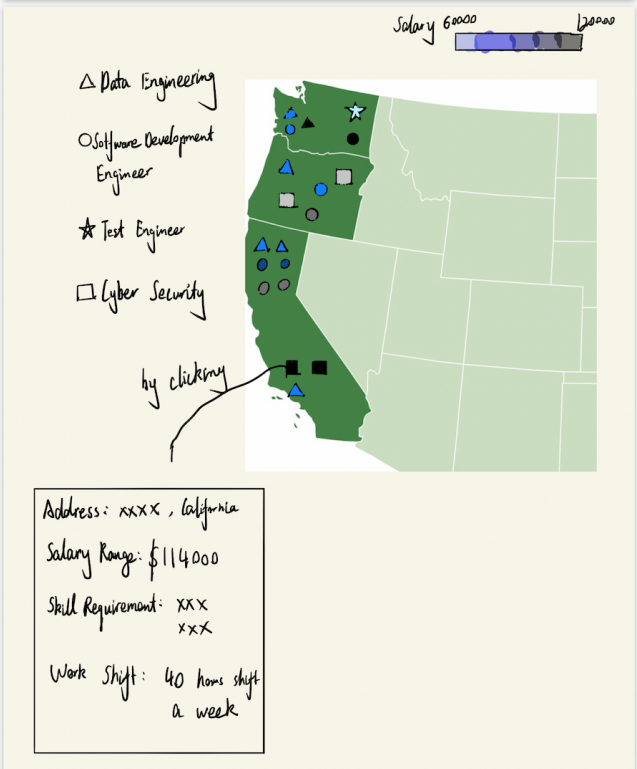
The reason I choose the bridge plot method is because generally speaking, a job category requires many different computer skills, but the relationship between skills and job categories is not one-to-one (like for example, almost all computer science related jobs require knowledge of at least one oop language). Therefore, using a bridge plot could easily solve the one-to-many problem.

For the plot, on the left half of the chart are the 4 job categories, and on the right are the skills required for each job. By using lines to connect job categories and skill requirements, users can easily find the skills requirements for each job type, and select jobs they are interested in based on the skills they currently have. In addition to that, since there are many lines in the chart, in order to make it easier for users to find the skills required for the job, different colored lines are used in the chart to connect the skills requirements for each job.

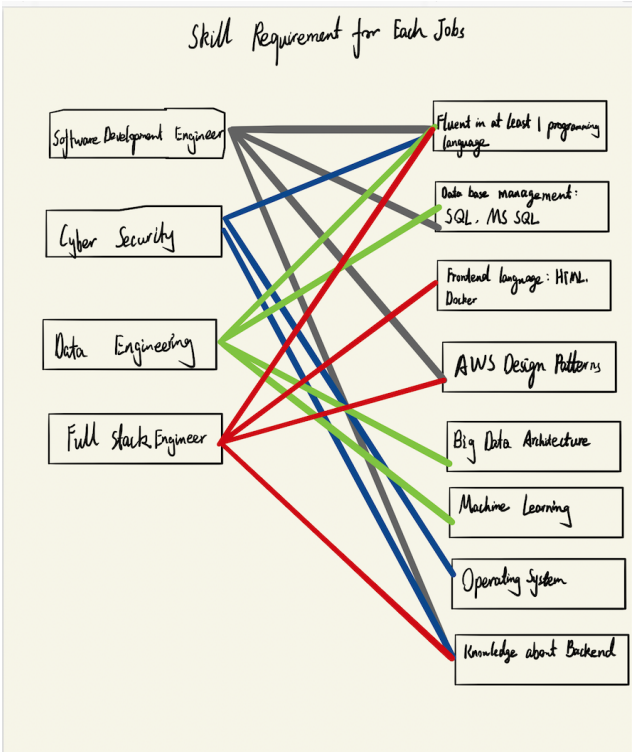
By using these two charts, users can quickly figure out the type of job they are looking for. After that, he/she can find jobs with the right salary in the area through the first visualization without going to the recruitment websites and clicking each job posting.

Two Sketches:

1. Map Visualization



2. Skill Requirements for Each Job Category



Paragraph Reflecting in the Feedback:

1. One factor to consider about the first data visualization method is to filter out duplicate information, because companies may post the same recruitment information on different recruitment platforms. For example, users might find the same companies hiring software development engineers on LinkedIn and Handshake. Thus, data visualizations will contain too much duplicate information if all the information is displayed in a chart without filtering. Therefore, for the future design I am planning to add a filter that removes the duplicate data using company address and type of recruitment.
2. For the second visualization, one point to consider is adding weight to skill requirements. In job postings, hire managers often write things like “highly recommend” applicants having a certain skill, this means having the highly recommended skill is helpful for applying for this job.