	Strength	Weakness
Quantitative/Qualitative/Mixed Method	1) I have different experience in quantitative research: I mostly conduct data exploration, visualization, and analysis 2) I have much hands-on experience in data visualization and analysis with Python packages. I can choose suitable form and metric based on the type of data and analysis goal.	1) I don't have any skill in qualitative research and mixed method, except design a simple online survey and collect data from it for an elective in humanity. And I'm not sure what and how much qualitative skill I should get for my research.
Programming capabilities	1) I have experience in versatile languages such as Python, R, JavaScript, SQL, even a bit Zsh (defaulted MacOS shell script) 2) I quite familiar with Python for ML, data visualization/analysis work! R is my 2nd choice when biological work like DGE analysis is involved. 3) Tool/software: familiar with VS code IDE, git, Conda environment 4) Specific focus: training supervised ML model: feature engineering, dataset splitting, cross-validation, tuning and evaluation.	1) I started to learn R programing myself after Python, so I'm feel the syntax is a bit more complex. My R programming is typically not that smooth, also I'm less familiar with R library. I only use SQL, JS, Zsh occasionally for some minor but supportive work. 2) Most of time, I did achieve the task requirement, but I felt that I was not using the best/smartest approach or a professional workflow. This makes my codes not that concise…… 3) Specific focus: only know the theory of NLP, Deep Learning, LLM and other more advanced ML technique

		4) Recent years, I feel like an imposter as Copilot accelerates my coding so well and answers my questions related to coding. I am not sure if I really have a trustworthy skill in coding……
Mathematics foundations	1) Complete and have a good understanding in the STEM-level suit of math course: calculus, linear algebra, statistics and probability. 2) Know the overall logic of classical algorithms and metrics for both classification and regression ML model, like PCA, tSME, RF, RMSE, AUC-ROC….	1) All the coursework is not as deep as CS/Math major requirement 2) Though I can walk through algorithms and know how they work by respect, but I can't figure out every math detail behind it 3) I haven't tried deep learning algorithm which require higher math understanding but this technique is more capable for building solid models
Data Engineering		Only search some data science concepts if needed. Never took any coursework or online resource to learn.