Thinkful: Career planning document

This document will collect and organize your work in the career planning lesson of the prep course. Complete each section after reviewing the relevant assignment in the course material.

## Section 1: Explore the landscape

The survey behind Harlan's talk and the "radar" challenge provided me with much to think about

for my future career in data science. The first data scientist survey showed that I was a data creative with top skills in stats. The skills T-chart maxes out on stats but Math/OR and Business are tied for a close second. Programming and ML/Big Data take up the slack evenly in third place. Data creatives don't just analyze the data they know how to properly communicate the results either verbally or visually. A data creative can get work done using any tool available, can think scientifically about problems, and finally convey the message to other stakeholders effectively. The radar challenge results state that I am a modeller. Modellers interpret meaningful features of datasets and create the key deliverable insights needed by data teams. I'm familiar with a variety of mathematical methods and numerical techniques that can delivery results for prediction and improving performance.

The results of these surveys feel quite accurate regarding the skills that I have developed and used in my previous career as an actuary and quantitative financial analyst. While working as an analyst in a buy side financial company, I found that I had an intuitive knack for spotting issues with the data that was used for backtesting. In insurance companies, one has to often make do with often antiquated and poorly designed systems. I was writing reports and conducting model runs that had high visibility in the company. There is no doubt that my communication skills were being exercised at those times. There were certain issues that were not reflected in the surveys. I have interest in building skillsets in big data engineering. For example, I'm currently looking at Spark certifications. I also have interests in building buisiness related skills for whatever industry I would find myself as a data scientist. While the survey reflected accurately my current skills it did not reflect my aspirational goals regarding data science.

## Section 2: Job postings

*Find five job postings you're very interested in and post them here. Focus on one city. Don't just post the links; job postings have a way of disappearing after a while.*

### Job 1

* + Company name: eXcell
  + Title: Data Scientist – Advanced Analytics
  + Why did you choose this job? They are looking for people with a wide and advanced skillset. This job would be nontrivial and important for the company.
  + Link: From Indeed: Our client is the world’s most recognized sportswear corporation seeking a Data Scientist who will directly shape the future of advanced analytics by delving deeper into our data, gaining insights from it, developing solutions, and presenting recommendations to senior leaders.

### Job 2

* + Company name:Intel
  + Title: Data Scientist Entry Level
  + Why did you choose this job? Could be a good foot in the door job. Lots of opportunities.
  + Link: From Indeed: Data Scientists influence how Intel does business, one data-driven decision at a time! In this role, you may assist business units with casual inferences and observations with finding patterns, relationships in data, develop software, algorithms and applications to apply mathematics to data, perform large scale experimentation and build data driven apps to translate data into intelligence, solve a variety of business problems and enable business strategy, inform, influence, support, and execute business decisions and product design, analyze and explore data to help discover hidden business insights in the data. It may also involve development of complex queries using stored procedures and similar methods, as well as design, develop, and implement high performance and easy-to-use data visualization functionality, and automation scripts.

### Job 3

* + Company name: Cambria Health
  + Title: Data Scientist Internship – Deep Learning
  + Why did you choose this job? Deep Learning is hard and very hot right now. I have experience doing it from Udacity projects.
  + Link: From Indeed: **Cambia's Data and Technology Solutions Department delivers innovative data and technology products, services, and solutions that help drive Cambia to its person-focused healthcare transformation. By creating new products and helping customers, we are builders at heart in Cambia. Our national teams are constantly iterating and solving problems, and they are working together to make the customer engagement process easier, faster and more enjoyable. Yet, we are just getting started!**

### Job 4

* + Company name: Mentor Graphics
  + Title: Product Engineer – Machine Learning
  + Why did you choose this job? The company has been in the area for a long time.
  + Link: From Indeed: The position is part of the Calibre Mask Synthesis Product Engineering Group. This group develops and supports software which enables IC Manufacturers to develop next generation products.

### Job 5

* + Company name: Data Scientist
  + Title: Cognizant
  + Why did you choose this job? Opportunity to do varied Data Science Consulting.
  + Link: From Indeed: Cognizant has built a large and dedicated team of Advanced Analytics & Data Science experts, which works with its clients globally, across all major industry verticals, delivering world-class data science outcomes. We are looking for candidates who can be a part of this team and its growth.

## Section 3: Your company hitlist

*Find five dream companies (whether or not they're hiring data scientists right now) and add them to this hit list. Focus on the same city you did for job postings. Include a sentence about why you added each company.*

### Company 1

* + Company name: Project Franklin, Store #8
  + Why did you choose this company? It’s a stealth mode technology incubator company within Wal-Mart. Sounds like it could be fun. On Long Island rather than Portland. I added this because it jumped out at me.

### Company 2

* + Company name: Ebay
  + Why did you choose this company? Large company likely has need for Big Data and endless data modeling.

### Company 3

* + Company name: Amazon Web Service
  + Why did you choose this company? Part of Amazon and they do consulting. Should have lots of educational jobs.

### Company 4

* + Company name: Umpqua Bank
  + Why did you choose this company? Fits in with my previous experience in finance.

### Company 5

* + Company name: NIKE
  + Why did you choose this company? Old Portland company known world wide probably has lots of marketing issues.

## Section 4: Find your people

*Add the data science related events in your area and find LinkedIn profiles for local data scientists working at the kind of job you want.*

### Local data science events:

* Portland Data Science Group
* PDX Data Engineering
* Portland Machine Learning Meetup

### Local data scientist from a company on your hit list:

* https://www.linkedin.com/in/jallenbradley/

### First or second degree connection in the industry:

* https://www.linkedin.com/in/robinchen7/

## Section 5: Write your own story

*Make the work you've done so far concrete.*

### Describe your ideal job to an industry professional

The ideal job for me would allow me to make use of my love of predictive analytics to create novel personalization strategies for our business. We need to understand both the commonalities but also the important clustering factors that makes each individual unique. Through extensive testing we will conduct followup personalization that make each customer want to come back. Our website is huge and growing at a double digit annual rate, this makes it ever important that invest in tools that will scale. We have a Hadoop data pool and are using Spark but we need to spend even more resources on porting our existing old code into the Spark platform. I will lead the effort to port this code while also working to create new visualization and reports for senior management. The endgoal for our team is to create a data product that will allow senior executives to make the difficult strategic changes our business needs in order to grow.

### Describe the same job to a non-technical family member

Being able to sell our product requires us to have a deep understanding of our customers. Not only do we need to understand our current customers but we must also learn about how to reach future customers. Figuring this out requires what we call a model. This is just a way of predicting an outcome given certain input data we have found useful for the prediction. I work on bringing data from multiple sources into our computers. I work with multiple computer languages to store data on the computers in a useful manner, to fix the data when there are faults, and run and change the model so it can help recommend products to customers on our website. Our recommended products have been targeted to appeal to each individual customer. We have a large website so everything has to be done fast at industrial scale. Finally, when I make changes to the model and website we have to conduct testing. On a regular basis, I report and hold meetings with management to communicate our findings. I use my knowledge of our business processes to suggest improvements and changes to our way of doing business.

### Draft your aspirational professional summary

Former actuary who uses his expert knowledge of statistics and predictive models combined with an intuitive data sense to focus insight on key business deliverables. Paramount importance given to communication of practical business results in order to create meaningful predictions and optimized performance.