Your Resume – Selling Yourself Using SAS®

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ABSTRACT

These days selling yourself as the ideal candidate for a job is a tricky business. Your resume should demonstrate strengths and skills, cite meaningful performance metrics, quantify contributions to the organization, and set you apart from the competition, all while being concise and staying to the point. As a SAS user, it is likely that the skill set you would like to showcase involves programming and data analysis, so it seems perfectly natural that you should use these skills to create content for your resume. A well thought out SAS graphic or table might be the perfect selling point to catch the attention of a hiring manager. This paper will provide some ideas for showcasing your SAS skills no matter how much experience you have.

INTRODUCTION

What makes a good resume? The answer to this can be found in thousands of websites written by professionals offering advice about what to include in your resume. These days resume writing has become an art form and it is easy to become inundated with information overload. This is compounded with the fact that there seems to be a constant evolution in what content is relevant on a resume. Should an objective be included that describes the needs of the job seeker, or should a positioning statement be included that describes what you have to offer the employer? Should your job duties be described in terms of metrics that contributed to improved results for your company? Should a profile section be included as a snapshot of your many years of relevant experience?

As a data analyst or programmer, who is most likely seeking a position involving these very analytic skills, it makes sense that your resume should demonstrate an effective summary of your experience. Including an impressive graphic or table to showcase your skill set might catch the eye of the hiring manager, and it would also show your ability to condense meaningful information while creatively using your programming skills.

IMPORTANT ASPECTS OF THE RESUME

Hiring managers do not have an endless amount of time to read every line on the resumes that pass by their desks. In fact, they are most likely subjecting each resume to a quick scan which results in either moving on to the next round of review or the recycle bin. Therefore it is wise to include the most important information at the top of your resume and in a way that is specific, relevant and unique. This is where you could consider adding a graphic or table to showcase your skills 'at a glance'. No matter your experience level, we each have information that can be summarized and this is where your creativity can play a major role. There are four aspects of resumes that lend themselves to utilizing and showcasing these analytic skills: profile, metrics, design and layout, and uniqueness.

PROFILES

Including a profile section at the beginning of your resume will assist speedy reviewers in their assessment. This section could be critical for job seekers with a long resume due to years of experience, as well as academics with lengthy CVs. Likewise a profile section could be important for a younger professional in that it will help set them apart from other job applicants.

Traditionally resumes start with an objective statement, which would seem like a perfect fit for the profile section. However, the day of the boring objective statement has faded and in its place are positional statements that showcase what the job seeker has to offer the employer. The profile section could include this positional statement followed-up quickly with a graphical summary of the skills that demonstrate the value that would be added to the company if they were to hire you. While it is up to you how to create your bold and unique positioning statement, it should be relevant to the skills that you plan to summarize in your profile section.

The most obvious information to quickly summarize for a data analyst or programmer would be the programming skill set. A tile plot made using the Tile Chart task in SAS Enterprise Guide (figure 1) displays information about statistical programming skills combined with years of experience. This plot is simple to create with the click and point interface of Enterprise Guide, and there are many customization options including color, title and labels. The shading and size of the boxes describe the years of experience with each programming product.

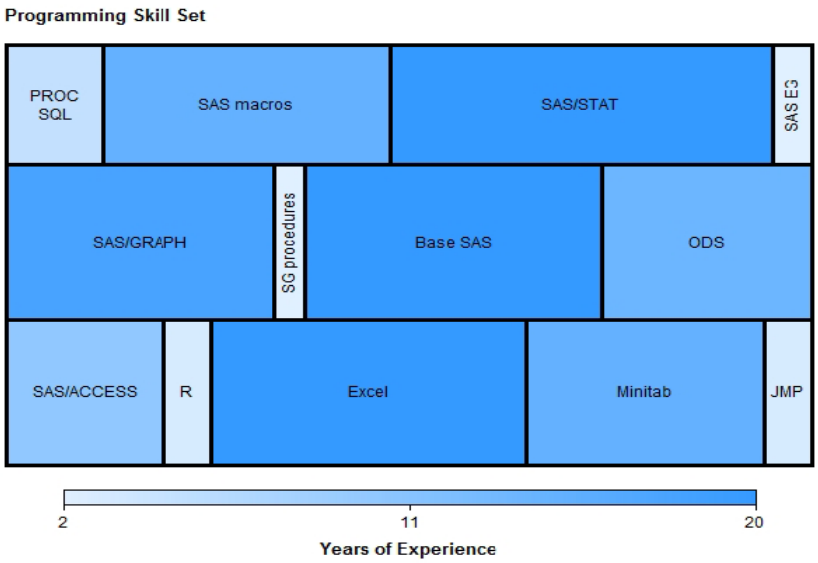

Figure 1. Programming skill set with years of experience

If years of experience are not the focus, a somewhat more subjective plot could rate programming experience level from basic to advanced (figure 2). A student or junior analyst might wish to focus on their programming skills by SAS procedure. Professionals might wish to summarize their experience by SAS product. These horizontal bar charts can be created easily with SAS/GRAPH.

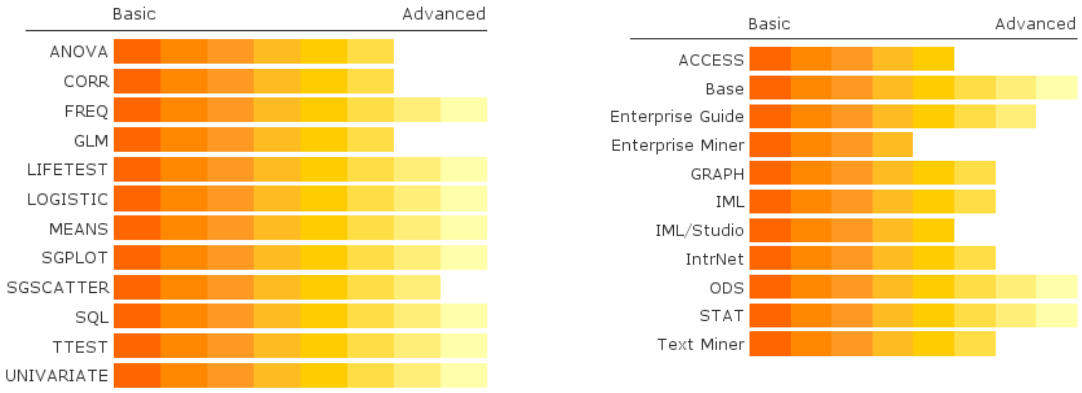

Figure 2. SAS skills by procedure and by product

Another useful profile section graphic could be a timeline of education and work experience. A timeline can contain an important snapshot of how you have spent the last several years of your working or academic life, without listing every job responsibility, these details can come later in the resume. The timeline in figure 3 summarizes the experience of a student while they worked and attended university. A junior professional's timeline might include a graphic that would show various employers, certifications, and awards. A person with many years with one employer might want to create a timeline that displayed internal promotions in addition to certifications and awards. The timeline presented here was created with the SGPLOT procedure using the HIGHLOW statement. Labels and symbols were added with the ODS Graphics Editor.

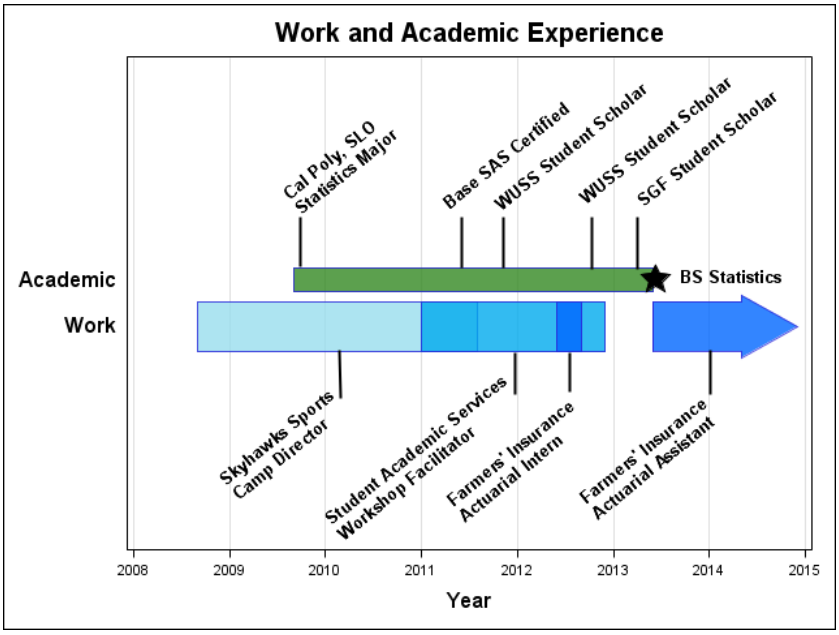

Figure 3. Experience timeline of a student

METRICS

Employers want to know that you will be able to produce results for their company. On your resume your job responsibilities and/or coursework should include metrics that show meaningful results. Of course these metrics can be written into the traditional resume in the job description section. However metrics are also the perfect place to take advantage of your skills as a data analyst by creating a graphic to summarize them. Using a graphic or table is a way to convey the idea that you can make an impact and showcase your productivity at the same time.

Metrics for students and professionals may be very different. For students the focus will be more about what they experienced at university. For professionals it will be a summary of relevant work experience, and this could vary greatly depending on the type of jobs you've had as a professional. An example of a meaningful plot for a student could include their course load and GPA by quarter while in school. A simple bar chart (figure 4) of coursework with a VLINE on the Y2AXIS for GPA can be made with SGPLOT. The fill attributes, transparency, data skins and bar width can be modified easily within SGPLOT to make a graphic with an impact.

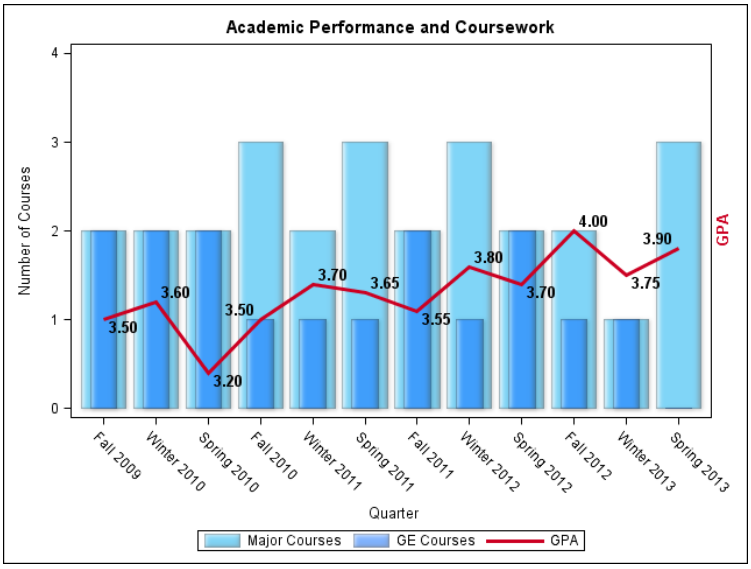

Figure 4. Coursework and GPA by quarter

Another important message to convey on a student resume is that the student has experience working with real data in their classes. This could be achieved by making a plot that shows the variety of data they have grappled on their class projects. A bubble plot (figure 5) was created with SGPLOT that displays of the size of the data set via the number of observations and variables. The size of the bubble corresponds to the number of lines of code in their programming. Using the GRID option creates the grid plot background, and a simple FOOTNOTE statement was added for the footnote. This graphic could be annotated with a concise description of meaningful projects and what was analyzed.

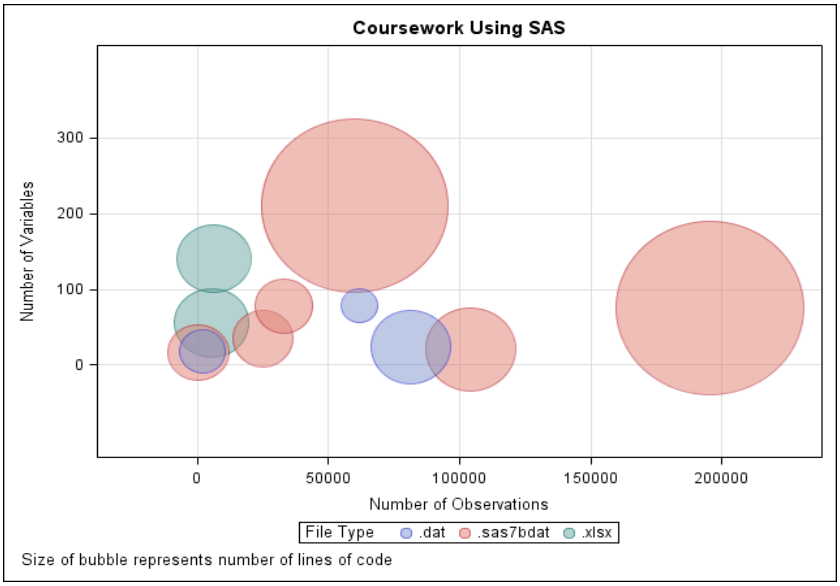

Figure 5. Data sets analyzed with SAS

An academic or professional may wish to showcase publications and presentations. A time trend (figure 6) of published work can be created to showcase productivity over time. This may be a nice graphic for the profile section on a CV where the journal citations go on for many pages. The SGPLOT procedure was used to create this bar chart with a trend line. The INSET statement was used to add the note within the graph. Additionally, using the BORDER=OFF option with ODS GRAPHICS removed the outside border from the plot to give a cleaner look, and should be considered for use on any resume graphic.

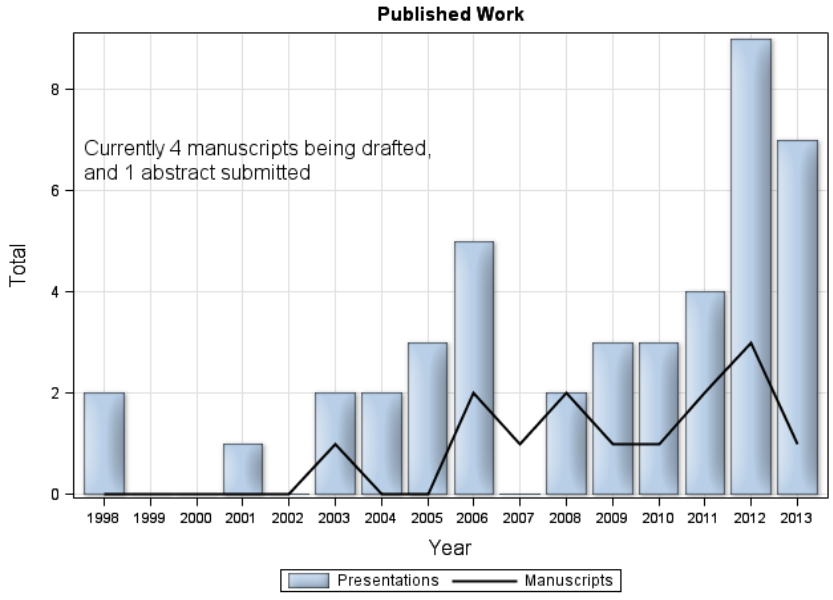

Figure 6. Time trend of published work

In addition to summarizing your publishing productivity it might also be helpful to summarize where you have published. A long CV could be summarized quickly by including a productivity table based on the name of the journal and conference. Using PROC REPORT, a table (figure 7) can be assembled that condenses information upfront in the CV and leaves the individual citations in a subsequent section for further review. Additional information could be included in these summaries such as impact score for journal articles (figure 8), or a count of publications by authorship position (data not shown). Title justification or shading can all be handled easily within the REPORT procedure.

	N
Journals	
Annals of Surgery	1
Breast Cancer Research and Treatment	3
Cancer	2
International Journal of Radiation Oncology Biology Physics	1
Journal of Clinical Oncology	2
Journal of the National Cancer Institute	1
Journal of the National Comprehensive Cancer Network	1
Medical Care	1
The Oncologist	2
Clinical Presentations	
Academy Health Annual Research Meeting	4
American Association for Cancer Research	2
American Association of Physicists in Medicine	1
American Association of Plastic Surgeons	1
American Radium Society	1
American Society for Therapeutic Radiology and Oncology	1
American Society of Clinical Oncology	9
Association for Academic Surgery	1
San Antonio Breast Cancer Symposium	7
Scientific and Statistical Database Management	1
Society of Surgical Oncology	2
SAS Presentations	
SAS Global Forum	3
South East SAS Users Group	1
Western Users of SAS Software	15

Figure 7. Publications and presentations

	N	Impact Factor
Journals		
Annals of Surgery	1	6.329
Breast Cancer Research and Treatment	3	5.87
Cancer	2	5.201
International Journal of Radiation Oncology Biology Physics	1	4.105
Journal of Clinical Oncology	2	18.038
Journal of the National Cancer Institute	1	14.336
Journal of the National Comprehensive Cancer Network	1	4.41
Medical Care	1	3.227
The Oncologist	2	3.91

Figure 8. Journal articles with 2013 impact factor

DESIGN AND LAYOUT

The need to pay attention to design and layout of graphics seems like it might cause a data analyst to have a panic attack. The best approach should be to take a deep breathe and think of your resume as displaying data that need to be summarized. This was easy with the metrics as they were basically like any other data analysis problem, but remember that you still had to make a nice looking display. Take the same approach when considering design of a specialized graphic. It may not be the traditional analytic plot that you are familiar with and you may have to rely on your creativity to come up with a novel design. But you should be able to create something meaningful if you remember to highlight your strengths clearly, summarize yourself without sacrificing specifics, and make your resume easy to read.

The bubble plot (figure 9) of relevant experience is not necessarily data driven, but it does provide the reader with an informative plot that has a meaningful layout. The plot showcases academic and work experience as well as other volunteer work that is relevant. This bubble plot is made with SGPLOT and the size of the bubbles can be adjusted with the SIZE= option. Taking advantage of the BRADIUSMAX= option can further enhance the size of the bubbles until the desired look is achieved. Using a SCATTER statement with MARKERATTRS that are suppressed is the best way to add labels for the bubbles. This is due to the fact that scatter plots have an automatic jitter for the labels so that they do not collide, while bubble plots do not. Finally a REFLINE can be used to create the reference lines running across the middle of the plot, and INSET statements are used to label these lines within the plot.

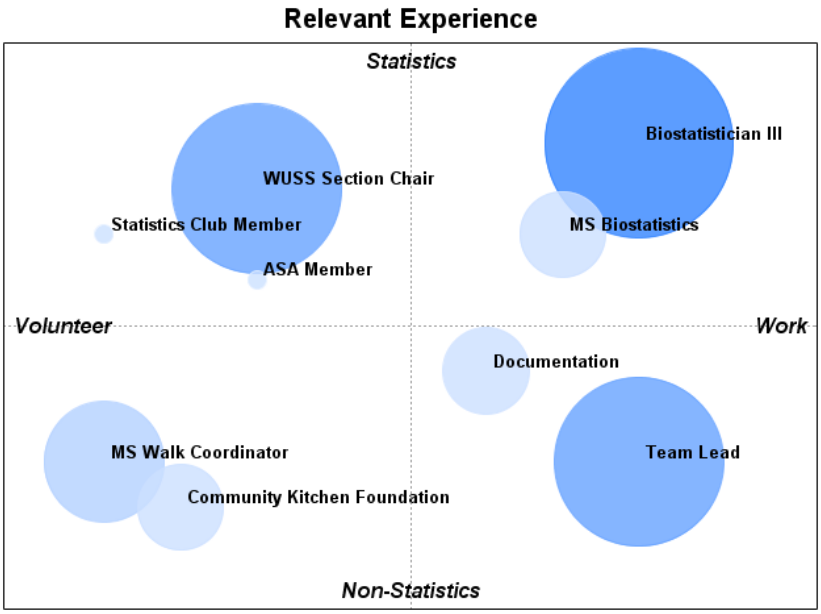

Figure 9. Bubble plot of relevant experience

The doughnut plot (figure 10) is another subjective plot of the percent effort of an individual in various subject matter across relevant experience groups. The goal of this plot is to summarize several related areas, but also to impress the reviewer with your ability to create a professional looking graph with SAS. Simple FOOTNOTE statements are used to explain the achievements throughout the years. This chart is one of the more professional graphics and it was made with good old fashioned PROC GCHART based on very helpful code created by Robert Allison (2013).

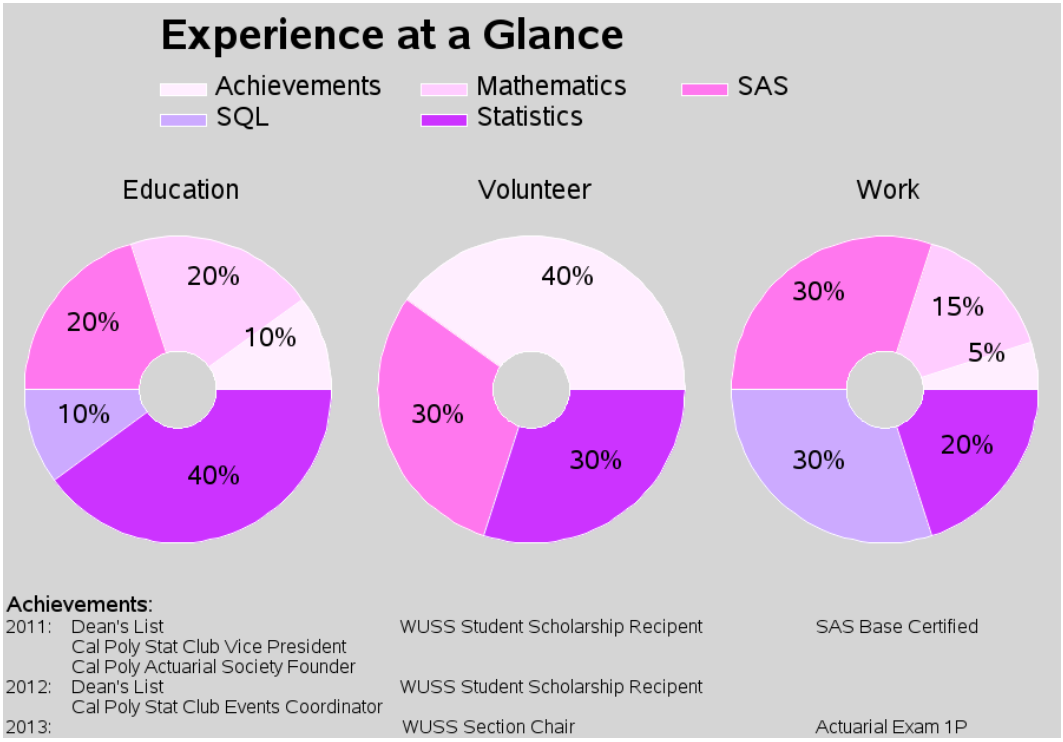

Figure 10. Experience and achievements

UNIQUENESS

The final feature of modern resume writing that is that your resume should be fresh and unique to set you apart. Including something novel such as a graph or summary table could help grab the attention of the reader or it may scare them away. Creating visual displays that are too far out could backfire, so it is prudent to not get carried away with graphics and tables. Making several versions of your resume could be helpful depending on the various goals and audiences.

The summary plot (figure 11) is an example that might not be for everyone. This graphic is mostly for catching someone's eye in an 'at a glance' setting, and would most likely be appropriate for only certain companies. This overall profile might be best used in an environment such as LinkedIn where there is the ability to share graphics on your profile. This plot is made with the BUBBLE statement of SGPLOT, but the key is the BRADIUSMIN= and BRADIUSMAX= options that make the bubbles overlap and fill the graph. Colors were specified using a DATTRMAP= option. Adding the labels to the plot can be achieved more easily with the ODS Graphics Editor. The custom legend with matching colors was created in the Graphics Editor by utilizing the pick color from graph option.

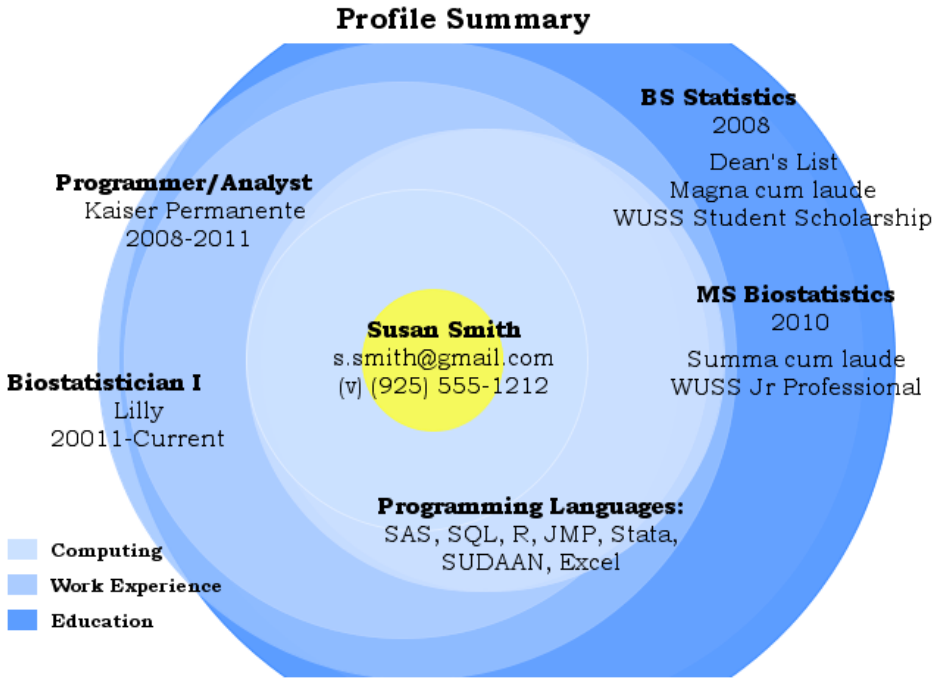

Figure 11. Overall summary

RESOURCES

There are several resources that are useful as you embark on making these types of summaries for your resume. Before jumping into the programming, consider searching SAS graphics examples and code posted by expert users and SAS support, as well as SAS books about graphics. While these example plots will be about a particular analytic data set, they can be helpful to initiate a crafty idea or identify a nice visual presentation, without having to reinvent the wheel. Next consider searching visually appealing resumes online, typically created by professionals such as graphic artists. While these resumes may have less analytic content, these people certainly have a knack for visual display. Perusing these types of resumes can spark ideas that can result in the marriage of visually appealing and meaningful graphics that can be programmed in SAS for your resume. Finally a review of websites with hex color maps is important in choosing appealing color choices for graphics. In addition there are sites that help with variations on color schemes and colors that work well with each other. A combination of all of these resources can bring to light the perfect graphic for your resume without having to start from scratch.

CONCLUSION

Including graphics and summary tables may not be appropriate in all situations. Posting graphics on a LinkedIn site could be one way to ease into the idea of using such displays. Some employers may be turned off by the use of graphics, while others might be wildly receptive. In addition, listing skills only in a graphic might cause an applicant to be overlooked because the first pass through the resume stack was with a 'word-bot' that scans for keywords and

may not pick them up in a digital picture. Careful consideration should be taken before submitting this type of content on your resume.

However taking the time to think about the content of your resume is a worthwhile endeavor. Even without adding graphics to your resume you can revisit how you handle your personal profile, incorporating of metrics, resume design, and uniqueness. If you choose to make the time investment to achieve the perfect visual aid you will find that it is an investment worth pursuing. Creating visual summaries such as these is a good learning experience and will add to your programming toolkit, while potentially helping land that new position at the same time. Adding graphics to your resume is a perfect way to showcase your SAS programming skills.

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