

INSIGHTS INTO EFFECTIVE DATA SCIENCE RESUMES, COVER LETTER, AND NETWORKING

Megan Stachura
Data Circles
November 18, 2020

OVERVIEW

- Discussion/Q&A throughout!
- How do you make it to the interview stage?
- Telling your story
- Resumes
- Cover Letters
- Networking
- Break-out groups for personalized feedback

ABOUT ME

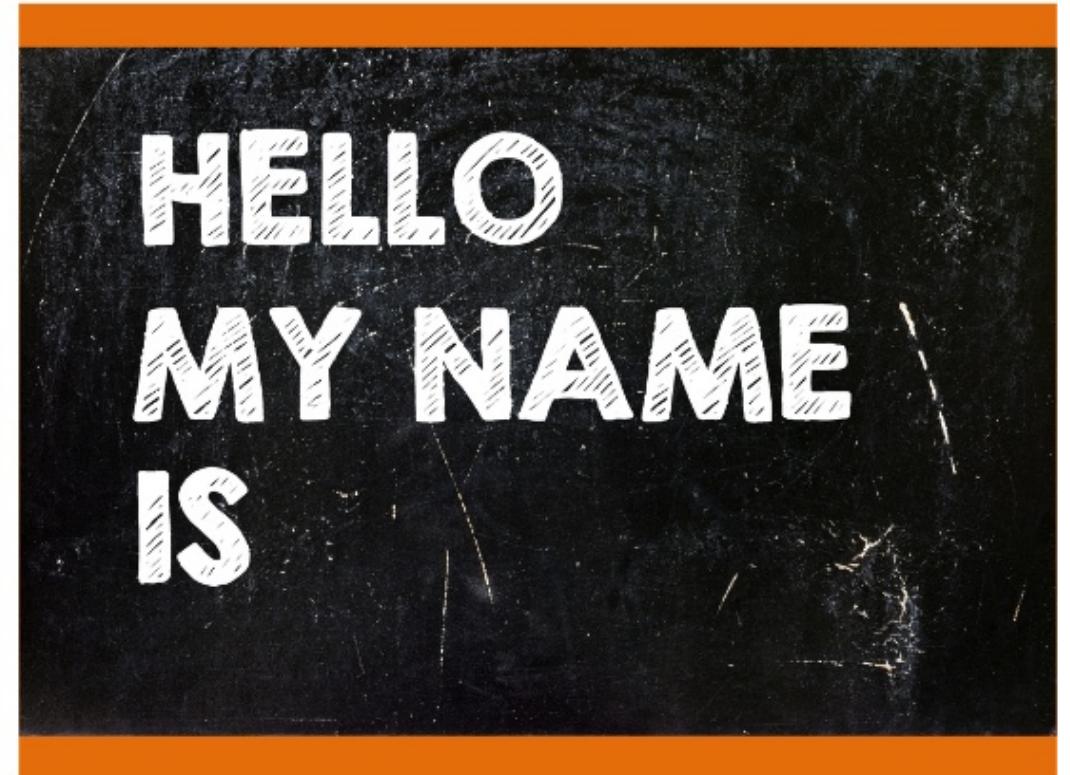
- Data Scientist at a small (but growing) environmental consulting firm for past 3 years
- Previously worked in federal government
- Master's degree in Aquatic and Fishery Sciences



**FOUR PEAKS
ENVIRONMENTAL**
Science & Data Solutions

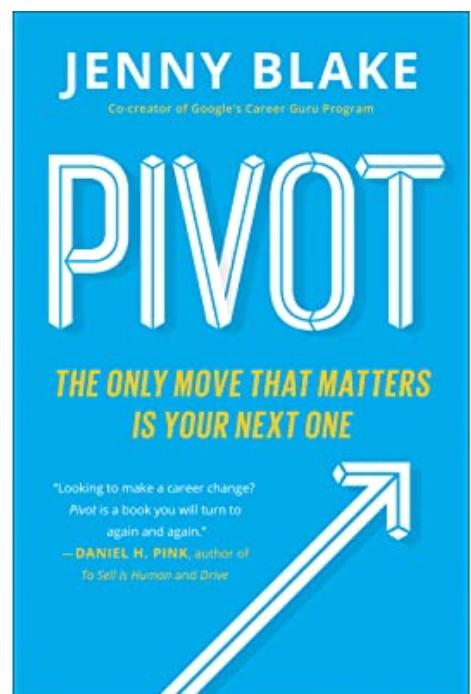
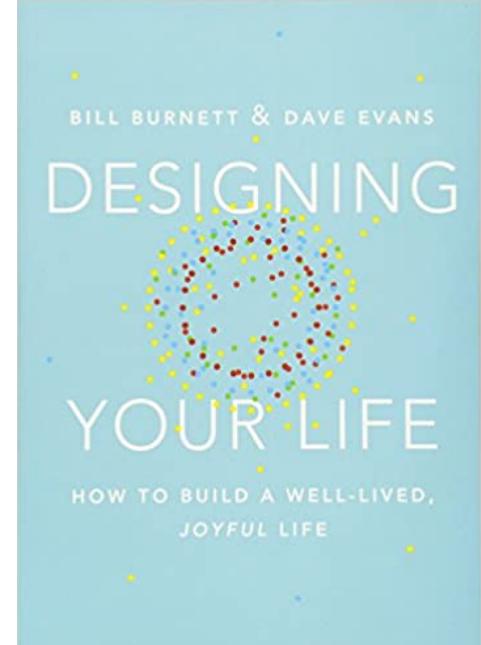
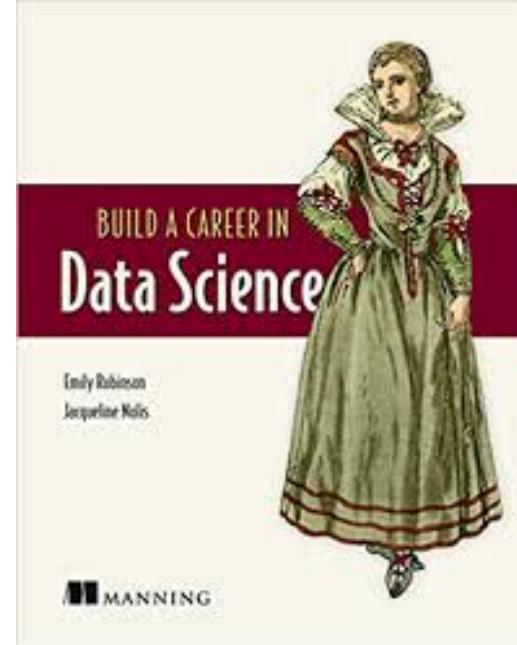
WHO ARE YOU?

- Name
- Type of job you have and/or are interested in move into
- Career stage



MY KEY RESOURCES

- Workshops
 - “Tools for Transition” workshop through [Blue Bridge Consulting](#)
 - “How to Land a Job You Love” workshop through [Careers for Social Impact](#)
- Books
 - “[Designing Your Life](#)” book by Bill Burnett and Dave Evans
 - “[Pivot](#)” by Jenny Blake
 - “[Build a Career in Data Science](#)” by Emily Robinson and Jacqueline Nolis
- Being an interviewer
- Asking for feedback



TELLING YOUR STORY

- “As Steve Jobs said in his 2005 Stanford commencement speech, ‘You can’t connect the dots looking forward; you can only connect them looking backward’...I disagree with Jobs on one point: I do think it is possible to connect at least one or two dots looking forward.” —Jenny Blake, Pivot
- Develop your story first and carry the themes throughout your resume, LinkedIn profile, cover letter, interviews, networking, etc.
- Connection between your skills, interests, and values
- Understand your strengths
- Translate strengths into target roles
 - Wording/language
 - Industry trends
- Practice and iterate

DESIGNING YOUR LIFE

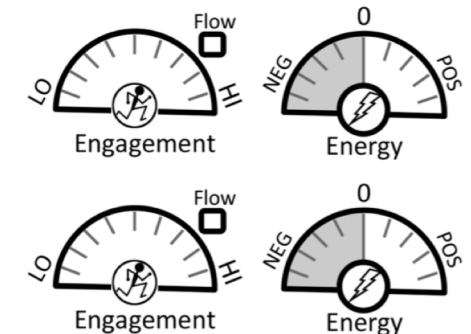
Alternative Plan # _____

6 word title: _____

Questions this plan addresses:

RESOURCES I LIKE IT CONFIDENCE COHERENCE

Good Time Journal – Activity Log



RESUME

Summary/Overview

- Key skills
- Tell your story
- Third person

Experience

- Adapt to the specific job, using key words and phrases
- Accomplishments, not just job description
- Quantify outcomes
- Bullets
- Action verbs

References, Publications, and more possibly

Megan Stachura

Data scientist with over ten years of experience preparing, managing, statistically analyzing, and visualizing data for decision making using Python, R, SQL, and AWS; passionate about contributing to a world where everyone can thrive

EXPERIENCE

Data Scientist - Four Peaks Environmental Science & Data Solutions, 2018 - Present

- Develop Python scripts and Amazon Web Services pipelines to automate the transformation of raw data files into a standard format, identify and correct data issues, extract useful data features, and produce summary metrics and statistical analyses to support client decision making
- Design and implement both interactive and static data visualizations in Python and R (Shiny)
- Validate, manage, and query data in MySQL and SQL Server databases
- Project manager for up to 4 projects at a time, coordinating client and team communications and work to meet deliverable timelines and budgets
- Lead internal diversity committee

Research Associate, Policy Fellow, & Intern - U.S. National Marine Fisheries Service, 2009 & 2014 - 2018

- Developed a simulation model of recreational fisheries in R, integrating economic and ecological data from 36 different sources and predicting fish catch using zero-inflated negative binomial regression
- Wrote R and R Markdown scripts to repeatedly extract, clean, summarize, and analyze data and generate text, tables, and figures for regular reporting. Proactively identified projects that could benefit from these scripts and processes
- Implemented a logistic regression model to estimate the impacts of fishing methods on discarded fish survival rates
- Authored 16 web articles to communicate complex science and policy information to a general audience

Research Scientist & Graduate Fellow - University of Washington, 2010 - 2014

- Developed novel hypotheses, compiled and cleaned data, and applied numerous statistical modeling techniques in R (e.g., Bayesian hierarchical models, cluster analysis) to evaluate environmental influences on fish species, utilizing commonalities across species to gain statistical power
- Published 5 peer-reviewed papers and gave 8 formal presentations

MeganStachura@gmail.com
www.MeganStachura.com

Contact Information,
Links to portfolio, GitHub, etc.

SKILLS

Data Processing, Preparation & Management

Python (pandas, numpy), R (dplyr, R Markdown), SQL (MySQL, SQL Server), Amazon Web Services (S3, Lambda, EC2, Elastic Beanstalk, CodeCommit), Excel

Statistics/Machine Learning

Logistic regression, Bayesian hierarchical models (JAGS), zero-inflated negative binomial regression, bootstrapping, linear mixed models, cluster analysis, principal component analysis, dynamic factor analysis

Data Visualization

R (Shiny, ggplot2, base graphics), Python (matplotlib, seaborn), Tableau

Communication/Collaboration

Authored 15 scientific publications and 16 general audience articles; gave 18 formal presentations; Git

EDUCATION

Master of Science in Aquatic & Fishery Sciences - University of Washington, 2013

Courses included R programming, data visualization, linear and non-linear regression, differential equations, multivariate statistics, and Bayesian statistics

Bachelor of Science in Marine Science & Biology - University of Miami, 2010

Magna cum laude; minor in Mathematics

Skills

Education

RESUME- STYLE

- Use narrow margins to create more white space in the body
- Simple and clean
- Templates
 - canva.com
 - resumegenius.com/resume/resume-samples
 - hloom.com/resume

Megan Stachura
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EXPERIENCE

Environmental Scientist – Four Peaks Environmental Science and Data Solutions 2018 - Present

Statistical Data Analyst – ECS Federal (NOAA Fisheries contractor) 2015 - 2018

- Collaborated with stakeholders to develop a simulation model of regional recreational fisheries, including processing and summarizing data from many sources and analyzing and predicting fish catch using zero-inflated negative binomial regression and probability distribution analysis
- Wrote scripts to compile, analyze, and summarize data and generate text and tables for a national report summarizing fishing industry economic performance
- Analyzed commercial fishery behavior, integrating and summarizing many data sources

Marine Policy Fellow – NOAA Fisheries 2014 - 2015

- Developed scripts to automatically analyze data and produce visualizations and summary fact sheets for reports. Proactively identifying projects that could benefit from these analyses
- Coordinated a team to investigate effective strategies for managing recreational fisheries including planning project scope and strategy, researching policies and analyzing indicators of their success, collaborating with stakeholders, and communicating actionable recommendations
- Wrote and edited profiles of U.S. seafood species for the FishWatch website (www.fishwatch.gov)

Research Scientist, Graduate Fellow, Research Assistant – University of Washington 2010 - 2014

- Applied Bayesian hierarchical models, linear mixed models, and multivariate analyses (e.g. principal component analysis, dynamic factor analysis) to understand and predict environmental influences on North Pacific fish species, thoroughly researching and compiling relevant covariates
- Communicated findings and actionable recommendations through five publications and over a dozen presentations

Database Development Intern – National Park Service Summer 2010

- Compiled and quality checked 16 years of historical oceanographic data from Glacier Bay estuary into a publicly accessible database that has been used in ecosystem monitoring and research

Marine Ecology and Stock Assessment Intern – NOAA Fisheries Summer 2009

- Utilized a logistic regression model to understand factors influencing the survival of discarded fish and estimate impacts of fishing techniques on the population. Published and presented findings

EDUCATION

Master of Science in Aquatic and Fishery Sciences – University of Washington

- Completed courses in R programming, data visualization, linear and non-linear regression, multivariate statistics, and Bayesian statistics

Bachelor of Science in Marine Science and Biology – University of Miami



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Data scientist with over ten years of experience preparing, managing, statistically analyzing, and visualizing data for decision making using Python, R, SQL, and AWS; passionate about contributing to a world where everyone can thrive

EXPERIENCE

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- Project manager for up to 4 projects at a time, coordinating client and team communications and work to meet deliverable timelines

Research Associate, Policy Fellow, & Intern - U.S. National Marine Fisheries Service, 2009 & 2014 - 2018

- Developed a simulation model of recreational fisheries in R, integrating economic and ecological data from 36 different sources and predicting fish catch using zero-inflated negative binomial regression
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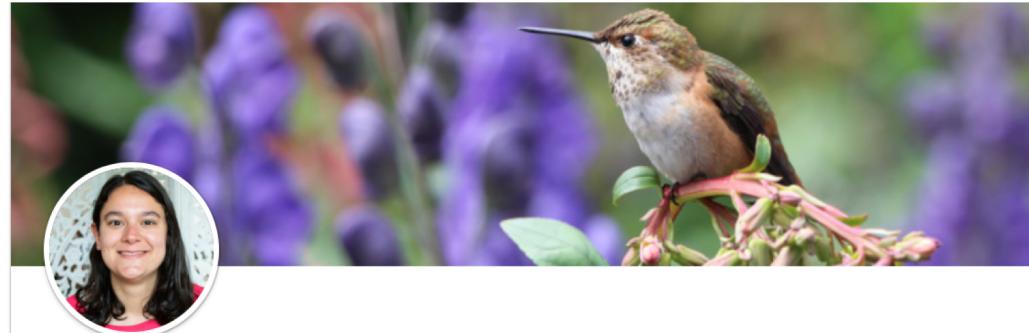
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EDUCATION

Master of Science in Aquatic & Fishery Sciences - University of

LINKEDIN PROFILE

- One profile, possibly many job applications
- Include key words and phrases related to your ideal job
- Summary- first person, bulleted list of skills
 - Ideas/Templates: tinyurl.com/po3muac
- Professional photo
- Links articles, webpages, etc.
- Recommendations, endorsements
- Engage, building relationships over time



Megan Stachura
Data Scientist
Seattle, Washington · 293 connections

[Join to Connect](#)

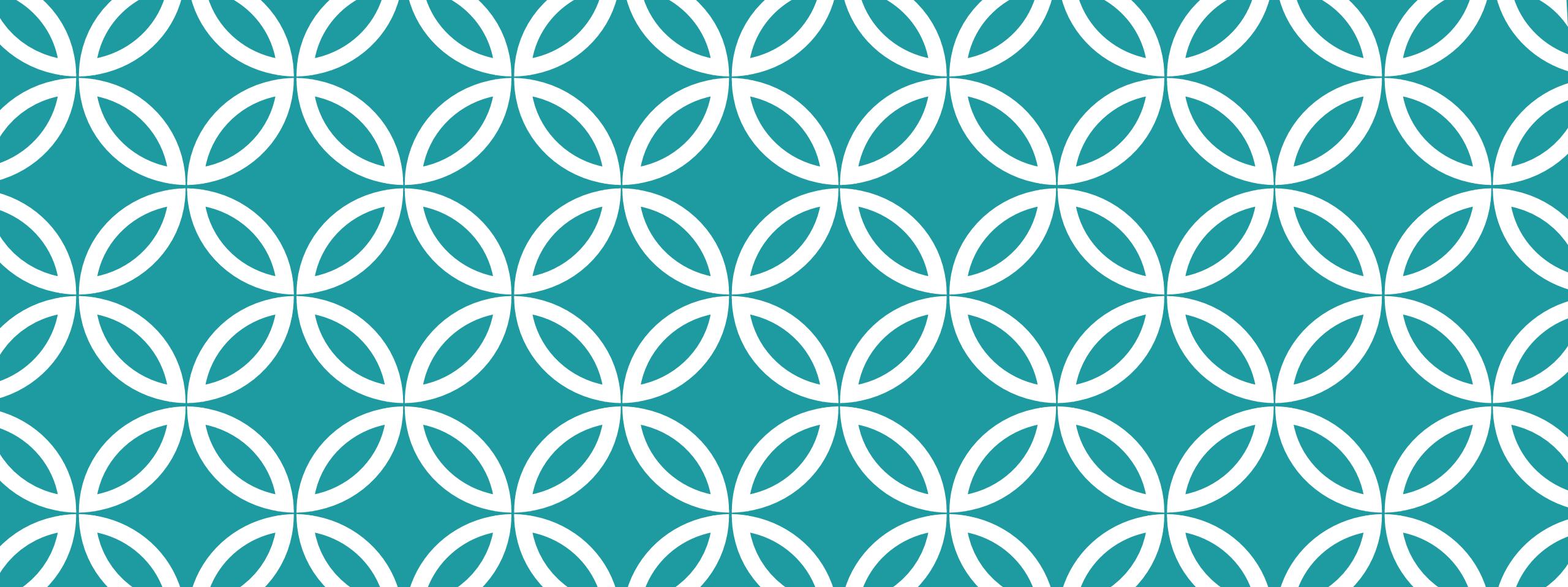
Four Peaks Environmental Science & Data Solutions
University of Washington
[Personal Website](#)

About

I'm a data scientist with over ten years of experience preparing, managing, statistically analyzing, and visualizing data for decision making — and I'm passionate about contributing to a world where everyone can thrive. Most of my work has been in the fisheries realm, where I have analyzed ecological and economic data to better understand how people and nature can thrive together.

Skills

- Data Processing, Preparation & Management: Python (pandas, numpy), R (dplyr, R Markdown), SQL (MySQL, SQL Server), AWS (S3, Lambda, EC2, Elastic Beanstalk, CodeCommit), Excel
- Statistics/Machine Learning: Logistic regression, Bayesian hierarchical models (JAGS), zero-inflated negative binomial regression, bootstrapping, linear mixed models, cluster analysis, principal component analysis, dynamic factor analysis
- Data Visualization: R (Shiny, ggplot2, base graphics), Python (matplotlib), Tableau



QUESTIONS OR ADVICE ON RESUMES?

COVER LETTERS

- To include or not
- Customize to the position and organization
- Explain why you specifically want THIS job at THIS time – tell your story!
- Formatting consistent with resume
- Bullet points can be useful
- Answer any questions that may arise
- Up to one page

Megan Stachura

Data scientist with over ten years of experience preparing, managing, statistically analyzing, and visualizing data for decision making using Python, R, SQL, and AWS; passionate about contributing to a world where everyone

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Dear Four Peaks team,

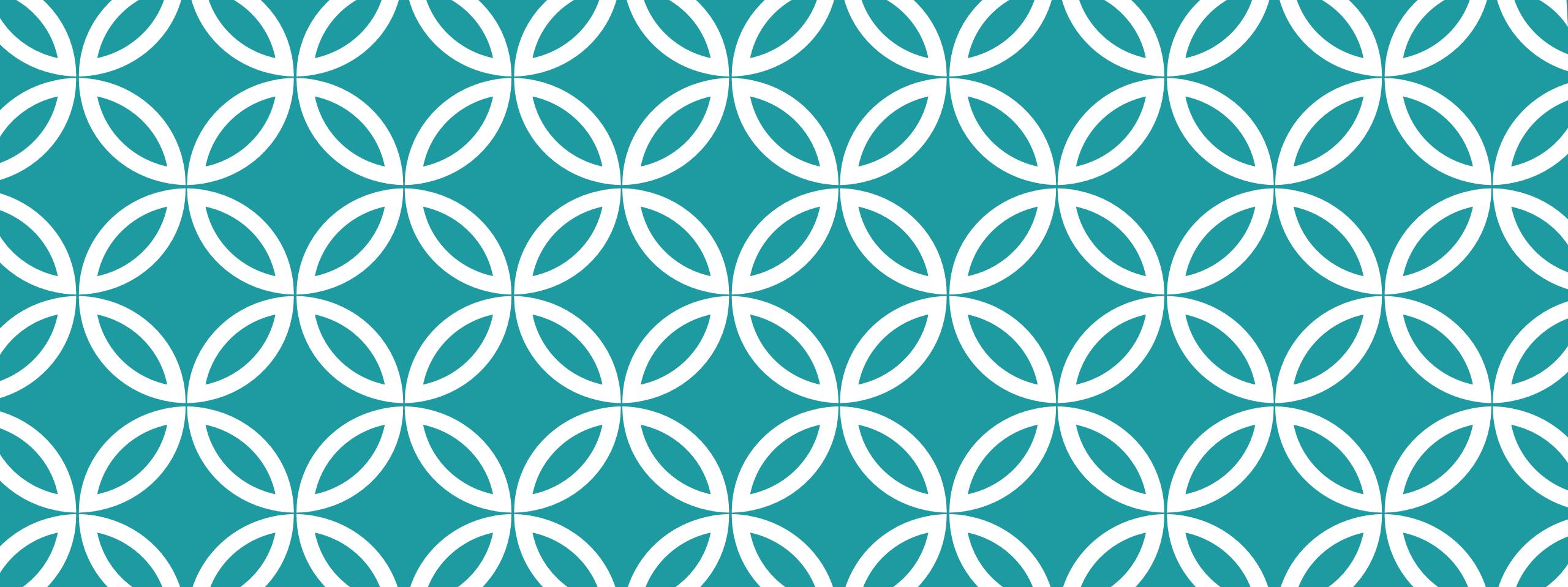
I was excited to learn about the Environmental Scientist position because I have been looking for an opportunity to utilize my data analysis and management and communication skills to support effective environmental science and management as part of an innovative, collaborative team.

I have **over seven years of experience managing and analyzing environmental data and communicating findings**, including:

- I earned a **Master's degree in Aquatic and Fishery Science**, for which I focused on quantitative techniques. I took classes in R programming, data visualization, linear and non-linear regression, multivariate statistics, and Bayesian statistics and applied these techniques in my thesis research and work since.
- I am an **expert at using the R programming language** to manage, summarize, statistically analyze, and visualize data. I also have experience using Python, SQL, Matlab, Java, HTML, R Markdown, Tableau, Excel, and Access.
- I have experience **processing, checking, and querying** many different types of data. For example, I compiled and quality checked 16 years of historical oceanographic data into a database that is used in ecosystem monitoring and research.
- I have developed scripts to **automatically query and analyze data and develop tables and figures for reports**, including for NOAA's annual Fisheries Economics of the U.S. report.
- I have **authored seven peer-reviewed journal publications**, for which I conducted extensive background research, compiled and analyzed data, and synthesized findings and management recommendations. I also **wrote and edited over 15 profiles of seafood species for NOAA's FishWatch website** (www.fishwatch.gov), translating complex science and management information into informative summaries for the public.
- I have presented research results to stakeholders at fishery management and scientific meetings through **over a dozen presentations**.

I currently live in Seattle, Washington and would need to be based from Seattle in this position. I hope to hear from you soon and will be happy to come in for an interview at your convenience. Thank you so much for considering my application.

Sincerely,
Megan Stachura



**QUESTIONS OR ADVICE ON COVER
LETTERS?**

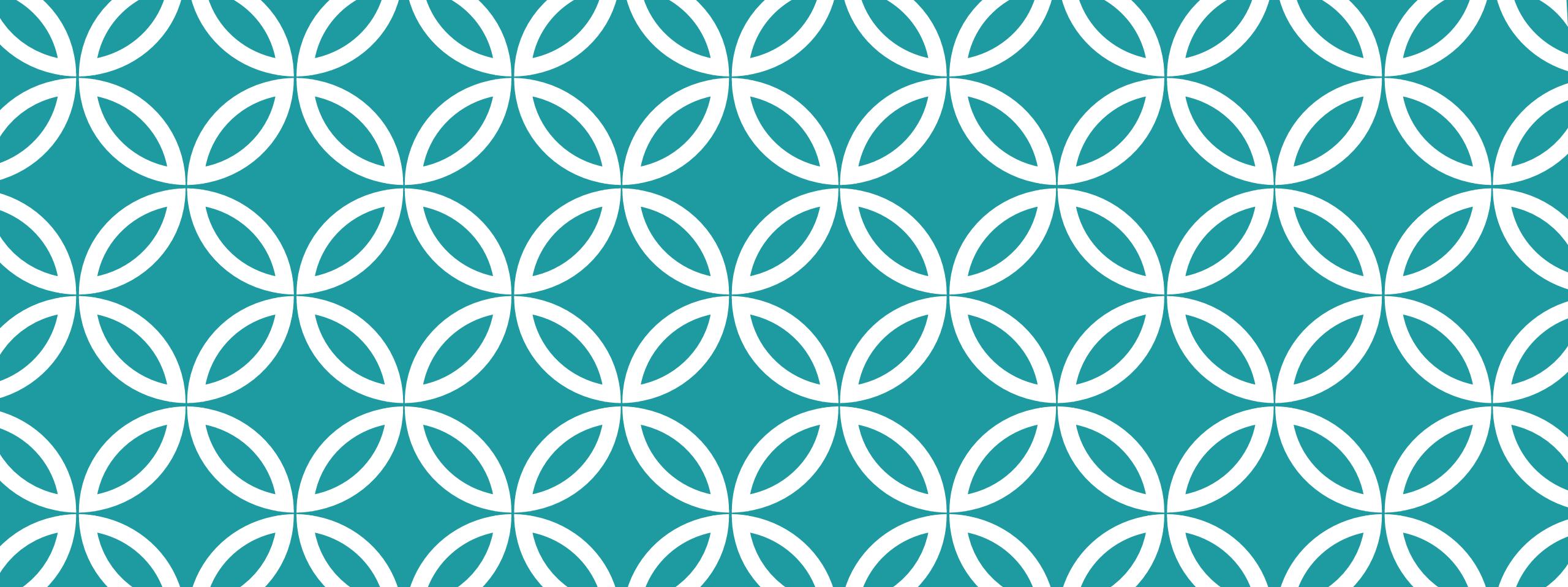
NETWORKING

- Don't be shy to bring up your work and/or job search with friends, neighbors, acquaintances
- People really want to help!
- Build authentic relationships over time
- More challenging currently, so proactively seek out
 - [Meetup](#)
 - Slack- Data Circles, PyLadies, PuPPy, R-Ladies, Women Who Code Data Science, AWS Machine Learning
 - Quarterly [social impact networking happy hour](#)
 - [Shapr](#)
- Don't be shy to respond to emails or posts about specific opportunities to ask questions and let them know you'll be applying



INFORMATIONAL INTERVIEWS

- Initial email
 - Tell them a bit about yourself, enough to convince them it's worth their time
 - Be specific about your ask – “Would you be willing to have a short call with me so I can ask a few questions about the position and organization? If so, I’m available anytime next Tuesday or Thursday afternoon, or could talk another time that is convenient for you.”
- Opportunity to learn more about their field and organization
- YOU set the agenda – impress them with your questions and ideas
- Get on their radar before a job is posted – job may be written with ideas you propose in mind
- Have resume on hand
- Take notes
- Ask for ideas of more people to talk with
- Keep it short (<30 minutes), respect their time
- Follow up – thank you email, stay in contact



**QUESTIONS OR ADVICE ON
NETWORKING?**

BREAKOUT GROUPS

- Introduce yourselves – practice your short elevator pitch
 - Name
 - Current position
 - Interests
 - Career goals
- Share a resume, cover letter, or LinkedIn profile to get feedback on from the group
- Share ideas about tools for networking, resumes, and other career tools
- We'll come back together at the end to discuss main take-aways