ODSC Guide to Data Science Careers

Dozens of tips on how to get a job in data science in 2021 and beyond.

OVERVIEW OF TRENDS

The following sections cover all bases for starting a career in data science. From the initial preparations to considerations for a career shift, this should cover everything you need to know to get started.

1. Preparation
2. Data Science Job Titles and Career Paths
3. In-Demand and Soft Skills
4. Transitioning from Other Fields

HOW TO PREPARE FOR A CAREER IN DATA SCIENCE

Just like any career, it's not as easy as just applying and hoping for the best. Building a portfolio, having a strong resume, and knowing some industry trends will set you apart when you finally start applying.

Build a portfolio and share your work | More
Just as a writer needs to showcase their blogs, landing pages, and social media copy that they've written, an aspiring data scientist needs to have proof that they can do what needs to be done. Start a GitHub profile, showcase some data visualizations on a website, build on a name on Quora and Slack Interview, and consider entering Kaggle competitions.

Make sure your resume is up to par | More
The field of data science is all about being precise and there's no room for filler – and that goes for resumes too. Make sure it focuses on your hard and technical skills, highlights relevant coursework (if you're starting out), and focuses on results and not fluff pieces.

Market yourself properly | More
Unless you're a seasoned pro with years, if not decades, of experience, then jobs aren't going to land in your inbox. Get yourself out there. Network properly, learn about the industries you're looking into, make a name for yourself, and make your resume stand out.

Take the time to understand the job postings | More
Data science job postings can be confusing, as hiring managers might not always know exactly what they're looking for. Make sure the job itself even makes sense; if they're asking for a machine learning engineer, does the description match it, or are they really asking for an NLP engineer?

HOW TO PREPARE FOR A CAREER IN DATA SCIENCE

Start a GitHub account | **More**
GitHub is the go-to source for data science code, projects, and so on. If you have any past projects or ongoing ones, consider posting them here and letting others view or comment on the work you've done. This is your best way to become a part of the greater data science community.

Do you really need a degree for what you're looking at? | **More**
While many job postings require a specific degree in data science or a related field, a good portfolio may speak for itself. This is pretty hard to do, but it's not impossible. You have a better chance of getting a job by using a degree from a related field, i.e. mathematics, statistics, etc.

Bolster your resume how you can | **More**
Especially useful for young data scientists without much experience, add what you can to your actual resume. Include volunteer work, school projects, work you've done for fun, and so on.

Keep working while you look | **More**
Gaps on your resume never look good. If you're in-between jobs or looking for the first time, then it's a good idea to stay busy. Participate in hackathons, get that Github going, read articles on the latest trends and tools, and prove your interest in the field. Plus, it helps you avoid getting rusty.

Think about why you're not getting a job if you've been trying | **More**
As much as you thinking about how to get a job, you should also think about why you're not getting a job in data science if you've been trying. Maybe it's your Github, maybe it's a bad resume, maybe you're not highlighting the right strengths. Think about it.

DATA SCIENCE JOB TITLES AND CAREER PATHS

“Data scientist” and “data engineer” aren’t the only two careers to choose from. There are various roles, paths, and niche positions that you can land yourself in.

Consider becoming a freelance data scientist | **More**
This one may be a bit harder for a younger data scientist, but going the freelance route gives you more freedom in your career. It takes some time to get going, and involves a lot of networking, but it’s a good option if you want to explore different projects at once.

Machine learning engineers are becoming popular | **More**
With the rapid growth of artificial intelligence comes a rising demand for machine learning (ML) engineers. AI-driven software that employs deep learning, machine learning, voice AI, autonomous machines, and machine vision are but a few of the drivers.

Data engineers are becoming a must-have for business | **More**
Data engineers design the infrastructure that stores, moves, and integrates data from many different sources. They create environments for data scientists to analyze data (lakes and warehouses), enable ETL at scale, and optimize the ecosystem to ensure continuous insights. This makes them desirable for growing businesses.

DATA SCIENCE JOB TITLES AND CAREER PATHS

Roles change year-to-year | **More**
The “data scientist” job was all the rage just a few years ago, but now you’re hearing more about data engineers, ML engineers, ML architects, and so on. Keep an eye on what’s emerging and jump on the newest roles so you can define them.

Consider what field you want to be in | **More**
Every industry is hiring data scientists. From eCommerce and retail to healthcare and pharmaceuticals, there’s always a need for data professionals. Consider your interests, passions, and where you want to make a difference, and take it from there.

Start looking at individual companies | **More**
You could go to a jobs board and find a wide variety of companies hiring data scientists, or you could go right to a company’s individual jobs board. Almost every company has its own job listings, so if there’s an organization that you’re passionate about, consider starting there.

HONE IN ON IN-DEMAND AND SOFT SKILLS

While there are plenty of data science job openings, there are also countless other people looking for data science jobs. Learn in-demand as well as soft skills to set yourself apart from others.

Brush up on the fundamentals | More
You need to know various forms of mathematics to excel in data science. Take the time to brush up on the core skills, such as algebra, statistics, calculus, and so on. It'll come in handy with everything from basic machine learning to advanced deep learning.

Make your skills future-proof and evergreen | More
Just like any writer needs to have good grammar and the ability to follow a style guide, data scientists must have timeless skills that won't expire. Become a pro in a particular language, understand core mathematics concepts, and know how to communicate your findings. Even if a library goes out of style, these skills won't.

HONE IN ON IN-DEMAND AND SOFT SKILLS

Go beyond hard skills and have broad expertise | **More**
There's knowing hard skills like Python, R, TensorFlow, and so on, but then there's knowing general expertise. This means saying "I know machine learning" and being able to say you know plenty under the machine learning umbrella. Knowing broad topics like big data, analytics, communication, and so on will help you be more than just knowing a few hard skills.

Soft skills are important too | **More**
While most interviews and jobs do indeed focus on the hard, technical skills, having a solid grasp of soft skills can set you apart from those who only know coding. A data scientist who can speak well, write well, and communicate with management thoroughly can be an invaluable asset to any organization.

Know what's trending | **More**
In-demand skills change every year. Stay up to date with data science research, influencers, news sites, and so on, so that you can always stay current, and not be stuck three years ago. For example, ethical AI and explainable AI are hot topics right now, but they weren't as commonly discussed as they were 3 years ago.

YOU CAN TRANSITION INTO DATA SCIENCE WITHOUT STARTING FROM SCRATCH

Since the field of data science borrows so much from other disciplines, such as data analytics, software engineering, statistics, and so on, there are plenty of ways for you to make a lateral move into data science without having to start from the beginning.

There are plenty of jobs that transition well | More
A few roles may be obvious, such as data analyst and business analyst. However, if you use data or advanced mathematics, and there's an argument that you could make an easy transition. You'll likely need to learn some new skills based on what you already know, but many core skills are the same.

Data analysis is an easy transition | More
Many people in the ODSC community are data analysts looking to explore the world of data science. Many core skills are the same, and the major difference is really just the end result. Data analysts make sense of existing data, whereas data scientists transform data, create algorithms, and answer questions.

Switching from a citizen data scientist | More
Being a citizen data scientist means that you're somewhere between a freelancer and a hobbyist. You do things for fun and for your own portfolio, but much of your work can have great implications when helping the greater good. This is a great place to start, as you can build a portfolio, network, and stay busy while looking for a good job or learning other new skills.

YOU CAN TRANSITION INTO DATA SCIENCE WITHOUT STARTING FROM SCRATCH

Starting from the business route | **More**
While some individuals switch from another technical field, it's also possible to switch from a softer field like business or communications. Surprisingly, some skills do overlap. MBAs have great communication skills and analytical minds for problem-solving. Just add some mathematics and you're halfway there.

Going from academia to business | **More**
Academics have much different day-to-day requirements than practicing data scientists. They're more focused on research, trying out new things, and experimenting. Switching to a business or corporate setting might seem daunting at first, but the skillset is the same. You'll just have to learn to develop a mindset focused on business results, as opposed to experimentation.

Data engineering is on the rise | **More**
Data engineers are a bit unique in that they encompass so much - a bit of a jack of all trades within data science, making them a strong candidate for potential transitions. Using coding skills like Python and SQL, or knowing important expertise like the cloud or big data make it attractive to any organization seeking someone to fulfill a wide array of roles.

HIGHLIGHTED CAREER ADVICE VIDEOS AND ODSC SESSIONS

The following videos go into further detail, illustrating in-depth expert advice on how to get a job in data science, such as resume tips, building your own job, how to run a job search like a data scientist, and more.

WATCH ALL VIDEOS HERE ➤

Am I Ready for a Data Science Job? Aadil Hussaini | Data Scientist | Lyft

Before you even dive into data science as a career, ask yourself if it's even right for you. Are you passionate about the field? Do you think you have the mindset for it? See what other questions you should ask yourself here.

Build your Own Job:

Jack Raifer | Head of Data Science | Ada Intelligence

No two data science jobs are alike, as they may often combine various skills, techniques, and languages used. Learn how roles may differ between academia, startups, and enterprise, and what you can expect from different fields.

A Data Scientist from Academia to Industry: things you should know!

Wjdan Alharthi | Data Scientist – Chemicals, Petroleum, and Industrial Products | IBM

Data science is an incredibly academic field, with many students sticking around past their undergraduate years to obtain Doctoral degrees and performing research. Learn how to transition out of academia into the business world yourself.

HIGHLIGHTED CAREER ADVICE VIDEOS AND ODSC SESSIONS

Academia, Startups, and Enterprise: A Cross-Analysis of Work and Goals Dan Shiebler | Staff ML Engineer | Twitter

Becoming a data science consultant is a viable option for aspiring data science professionals. Here's the story of how one consultant ended up on his path and what his day-to-day is like.

Coding Challenges: What Are Hiring Companies Looking For?

Arwen Griffioen, PhD | Team Lead, Data Science | Zendesk

Just as writers need to pass a writing test during interviews, data scientists usually need to pass a coding challenge. Learn some tools that you can use to showcase your skills and what to expect from a potential challenge.

Data Science Success Stories:

Jeff Anderson | Instructor / Principal Engineer | Invesco

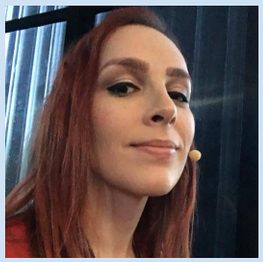
Sometimes a little inspiration and a few success stories can be just what you need. Learn from others in this video as you can see how others have obtained success in the field.

How to Run your Job Search Like a Data Scientist

Jeremie Harris | CEO and Co-Founder | SharpestMinds

Find a data science job... by thinking like a data scientist! Go in with an analytical mind, try different techniques, and learn how to create your own aha moment!

HIGHLIGHTED CAREER ADVICE VIDEOS AND ODSC SESSIONS



The Data Engineering Path

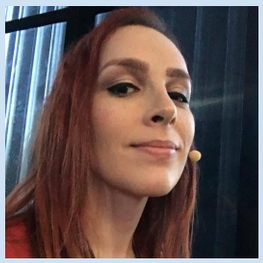
Daniela Petruzalek | Principal Consultant/Software Engineer | Google Developer Expert | ThoughtWorks

Data engineering is on the rise, with many more job opportunities coming out of 2021. Learn more about this role and maybe why you should consider this path, what the role entails, and gain some resources to help your search.

"Help! My job Search isn't Working"
A Live Recording of the Podcast
Build a Career in Data Science

Emily Robinson | Senior Data Scientist | Warby Parker; Dr. Jacqueline Nolis | Head of Data Science | Saturn Cloud

There are countless reasons why your job search may not be getting the results you want. This video will identify common pitfalls and errors seen, how you can overcome them, and other tips for finding the right job for you.



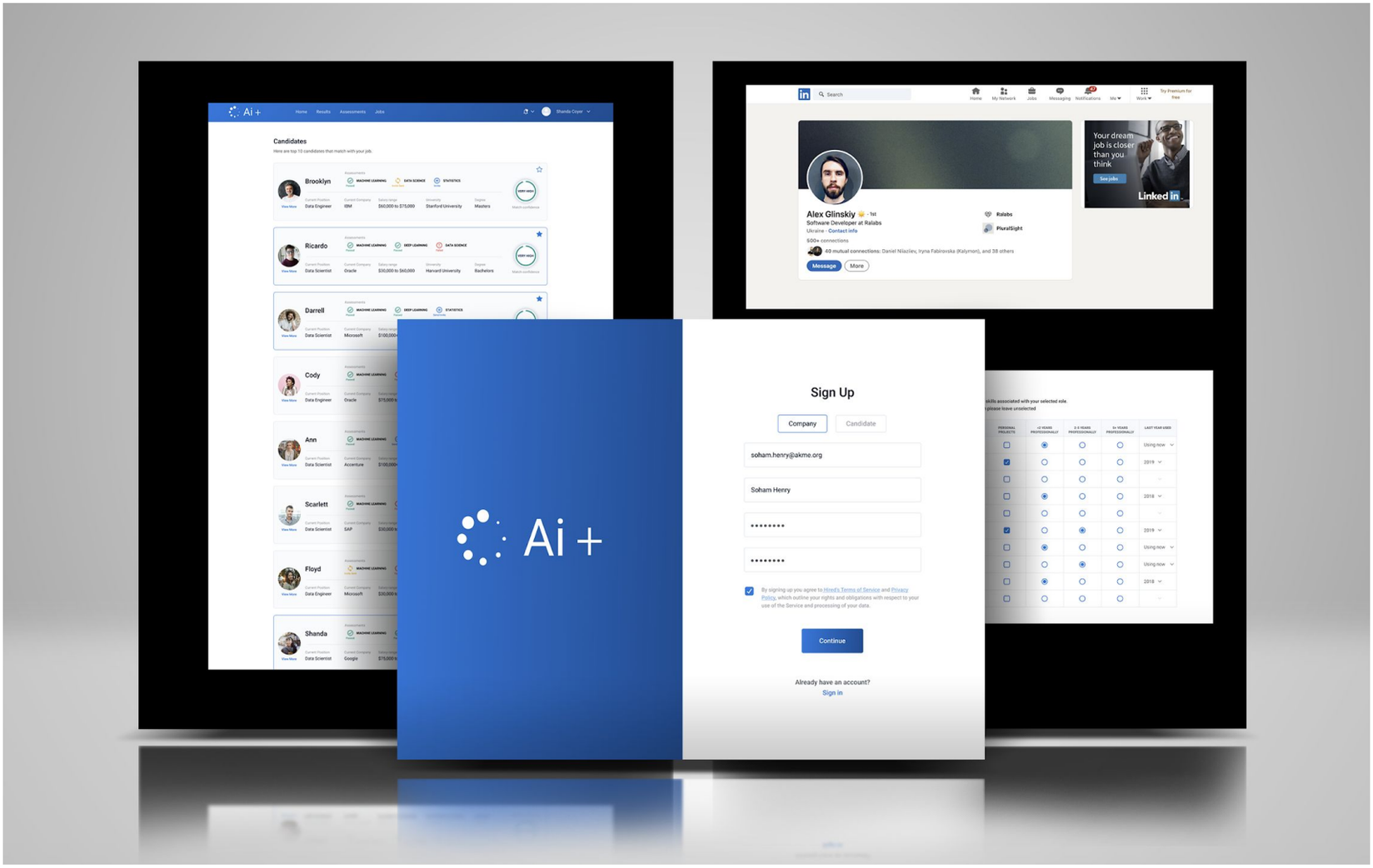
Keep it simple: how to talk to executives in an effective way:

Daniela Petruzalek | Lead Data Architect, Executive Director | J.P. Morgan

Going to job interviews and presenting generic, repetitive projects won't help you stand out. Your portfolio should show unique use-cases that haven't been done to death. Don't forget to go into that interview able to talk business and not just data.

Ai+ CAREERS

There are plenty of job sites out there, but our own Ai+ Careers site is designed specifically for data science and artificial intelligence professionals. Featuring automatic job matching, job assessments, and advanced career searches, this is your go-to tool for finding your next job.



Sign up Here!

ODSC WEST 2021 BOOTCAMP

Gain core and in-demand skills with this week-long bootcamp

Bootcamps can be a great way to kick your career into gear. However, many traditional bootcamps are both time-consuming and expensive. At **ODSC West**, we offer a different kind of bootcamp – one that is designed to help you identify passions and knowledge gaps and make an educated decision about the next step in your career without draining the bank, such as with the ODSC West 2021 bootcamp.

Below is what you can expect from the **ODSC West 2021 Bootcamp**:

Pre-Conference On-Demand Training:
Before ODSC West even starts, you'll get access to on-demand training from some of our expert speakers and instructors. These sessions will focus on introductory data science concepts and can be taken based on your individual schedule.

Conference Training:
During the conference, not only will you get access to all ODSC West hands-on training sessions, workshops, and talks, you will also get an additional day of training in data science fundamentals.

Day 2 and 3 will be focused on more intermediate topics and tools such as Reinforcement Learning, Transfer Learning in NLP, and Building Machine Learning Pipelines. The 4th and last day will cover advanced data science and AI concepts. All-in-all you'll get the full stack of beginner to advanced topics over the course of this 4-day bootcamp.

ODSC WEST 2021 BOOTCAMP

Currently, confirmed training sessions include

- GANs: Theory and Practice: Image Synthesis with GANs Using TensorFlow
- A Complete Real-Time Data Application in 90 Minutes: From Kafka to Streamlit
- Sound Classification and Detection with STFT and CNNs
- Data, I/O and TensorFlow: Building a Reliable Machine Learning Data Pipeline
- Operationalization of Models Developed and Deployed in Heterogeneous Platforms
- Deep Dive into Reinforcement Learning with PPO using TF-Agents and TensorFlow 2.0
- Get Started with Time Series Forecasting Using the Google Cloud AI Platform
- Post-Conference Training:

At the end of the conference you will leave with a Certificate of Completion, however, your training and pursuit of knowledge doesn't have to stop there. After ODSC West, you will have on-demand access to all conference recordings. So, if you missed a session, or want to revisit one that you particularly enjoyed, you will be able to do so at your convenience. You'll also have access to 100+ on-demand training sessions, workshops, and talks from past ODSC conferences.

Conference Networking and Career Advice:
Finally, you'll be able to get career support and advice during the conference with access to the Career Lab and Expo (virtual only) and our many networking events, including the ODSC networking reception and more.

LEARN WITH AI+

There are a number of ways that you can learn more about finding a job in data science, as well as learning trending, in-demand, and needed skills with Ai+ Training.

Highlighted Ai+ Training Sessions are available on-demand here.

- Foundations for Machine Learning Mini Bootcamp: Jon Krohn | Chief Data Scientist | Nebula
- Practical Advanced Pandas: David Yerrington | Data Science Consultant | Yerrington Consulting
- Hands-on Parallel Computing with Dask and Pandas: David Yerrington | Data Science Consultant | Yerrington Consulting
- Getting Started with D3.js for Data Visualization: Bill Shander | Founder | Beehive Media
- From Numbers to Narrative: Data Storytelling & Visualization: Bill Shander | Founder | Beehive Media
- Getting Started with Pandas for Data Analysis: | Boris Paskhaver | Software Engineer | Stride Consulting
- Introduction to Fraud and Anomaly Detection: | Aric LaBarr, PhD | Associate Professor of Analytics | Institute for Advanced Analytics at NC State University
- Advanced Fraud Modeling: Aric LaBarr, PhD | Associate Professor of Analytics | Institute for Advanced Analytics at NC State University
- Hands-on Intro to Unsupervised Learning: Ankur Patel | Head of Data | Glean
- Deep Unsupervised Learning: Autoencoders, Semi-supervised Learning, and Generative Models: Ankur Patel | Head of Data | Glean
- Natural Language Processing Fundamentals in Python: Matt Brems | Managing Partner, Distinguished Faculty | BetaVector, General Assembly
- Time Series Forecasting (with Python): Marta Markiewicz | Senior Data Scientist, Lecturer | InPost, Wrocław University of Economics and Business
- Reinforcement Learning for game playing and more: Amita Kapoor | Associate Professor, Author | SRCASW, University of Delhi
- Exploring the Interconnected World: Network/Graph Analysis in Python: Noemi Derzsy, PhD | Senior Inventive Scientist | AT&T Chief Data Office
- Bayesian Inference with PyMC: Allen Downey | Computer Science Professor | Olin College and Author of Think Python, Think Bayes, Think Stats

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With the eventX.ai platform, you can host your own virtual events! Learn more here and schedule a demo.

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Are you a technical or business expert in the world of data science and AI? Consider speaking at one of our events! Each event has its own speaker submission page:
ODSC East 2022

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We also offer partnership opportunities! Have your product, service, or research seen by thousands of data scientists at an event.
Learn more here.

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