Losers have goals, winners have systems
- Scott Adams
Outline

- Introduction
- Data Science Lifecycle Process to Role Matrix
- Data Science Interview Steps
- Takeaways
- Q&A
Introduction

Vimarsh Karbhari
- Software Engineering Manager
- Security, E-commerce, Recruiting
- Software Development, Data Science
- Acing AI Blog

Johannes Giorgis
- Senior Software Engineer
- Financial Technology, IoT, Recruiting
- Software Development, Data Science
- Cloud Infrastructure
### What do the roles look like?

<table>
<thead>
<tr>
<th>Role</th>
<th>Description</th>
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<tbody>
<tr>
<td>Data Scientist - Analytics</td>
<td>Defines and monitors metrics. Provides narratives and trends. E.g. Google Trends</td>
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<tr>
<td>Data Scientist - ML</td>
<td>Builds ML models that power data products and features. E.g. Uber ATG</td>
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<tr>
<td>Data Scientist - Statistics</td>
<td>Derives and uncovers relationship between data points. E.g. Stitch Fix</td>
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<tr>
<td>Data Scientist - Researcher</td>
<td>Google Brain, OpenAI, Facebook AI Researcher</td>
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<tr>
<td>Data Engineer - Data Pipelines</td>
<td>Builds and designs data pipelines to deposit data into a data lake.</td>
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<tr>
<td>Data Engineer - ML</td>
<td>Build ML models and designs applications to leverage models for products and features. E.g. Uber ATG</td>
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<tr>
<td>Data Engineer - Infrastructure</td>
<td>Deploy and Productize data science apps for products. Eg. Google Maps</td>
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<tr>
<td>Data Analyst</td>
<td>Data analysis and reporting</td>
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</tbody>
</table>
| Process -> | Ideation  
| Roles | Requirements  
| V | ROI  
| | Existing Processes  
| Data | Acquisition  
| and ETL | Data  
| Pipelines | Data  
| Exploration |  
| Research and Development | Experiment  
| | Modelling  
| | Software Dev  
| Validation | Business  
| | Validation  
| | Technical  
| Delivery | Product  
| | Delivery  
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- **Data Scientist**
- **Data Engineer**
- **Data Science Manager**
- **Data Analyst**
- **Product Manager/Stakeholder**
Data Science Interview Process

1. Education
2. Apply OR HR Reach out
3. HR Phone Screen
4. Take Home Assessments
5. On Site Interviews
6. Negotiation
Phone Screen

- Human Resources
  - 15 - 30 min
  - Your backgrounds, goals, interests

- Technical
  - 30 - 60 min
  - SQL/Data Analysis/Software Engineering
  - Past Projects Discussion
Ace Phone Screen

- Human Resources
  - Be enthusiastic
  - Passionate about your interests
  - Show you’ve done your homework

- Technical
  - Know your fundamentals!
  - Practice different types of problems
  - Practice communicating technical information
Take Home

- Timed Hackerrank Challenges
  - 1.5 - 2 hours, 3 - 5 easy - medium questions
- Coding Challenge
  - 1 - 7 days, 1 - 3 questions/test cases
- Data Analysis/SQL Challenge
  - 1 - 3 days, 1 - 5 questions, 1 - 2 datasets
- Data Science Paper Challenge
  - Implement a paper and present
Ace Take Home

- Efficient Algorithms and Data Structures
- Edge Cases
- Consider your constraints!
- Practice
  - 100 LeetCode/HackerRank problems
  - EDA on available datasets
  - SQL queries on databases
- Be consistent in your preparation!
On Site

- SQL Interview
- Whiteboard System Design
- Coding
- Query/Database Optimization
- Behavioral/Cultural Fit
- Paper Presentation
- Bar Raiser
Ace On Site

- Know your interviewers - LinkedIn, Company Blog
  - Ask about the nature of each interview in advance
  - Ask the recruiter about relevant resources/blog links
- Know your resume
  - Know your projects in depth and breadth
  - Be prepared to add as much detail when asked about it
- SQL Interview
  - Nested SQL Queries. Explain your solution as you write the query
Ace On Site

- ML System Design
  - Depth over breadth is preferred on any system design interview
  - Designing a system you have built in the past
- Coding Interview
  - Practice Leetcode, ML Algorithms
- Behavioral/Cultural Fit (STAR technique)
  - Provide example in detail to scenario based questions
  - Demonstrate the ability to present data products
Ace On Site

- Paper Presentation (Researchers)
  - Present a paper to a panel of researchers
  - Diagrams and pictures work better than text
- Ask questions
  - Ask relevant questions to each of the interviewers
  - Ask about challenges, wins, growth for starters
**Resources**

**Mock Interview Practice**
- Pramp
- Gainlo

**Take Home Practice**
- Acing AI Interview Series
- HackerRank - Interview Preparation Kit
- LeetCode
- Interview Cake

**Matching/Discovering Opportunities**
- TripleByte
- Hired
- Seen

**Education** ➔ **Apply OR HR Reach out** ➔ **HR Phone Screen** ➔ **Take Home Assessments** ➔ **On Site Interviews**

**Take Home Assessments** ➔ **On Site Interviews**

**Education** ➔ **Apply OR HR Reach out** ➔ **HR Phone Screen** ➔ **Take Home Assessments** ➔ **On Site Interviews**
Acing Data Science Interviews

- Self Paced
- Hours of video sessions covering each topic from SQL to ML System Design
- Exclusive Content - Company blogs research coupled with our database of questions
- Cover the full interview lifecycle
- Private Slack Community
- 1 Year access to everything

Join the April cohort
Keep Learning!

- Acing AI: Great Data Science Company Blogs
- Ultimate List of Data Science Podcasts
- Youtube: Two Minute Papers
Q&A

Email us: acingdatascience@gmail.com