Working as a Data Scientist – From Start-ups to Fortune 500s

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PERFORMANCE-DRIVEN
FLEET MANAGEMENT
Agenda

• Introduction

• Working as a data scientist
  • Roles in data and analytics
  • What do data scientists do?
  • What makes them special?
  • Project examples

• Getting hired as a data scientist
  • Application process
  • Interview process
  • Offer process
Introduction

• Currently working at Donlen as Manager – Predictive Analytics
  • Provides corporate fleet management services - 300k+ vehicles
    • Optimize lifecycle management
    • Predict fleet costs, downtime and maintenance issues
    • Improve fleet efficiencies
    • Reduce operating costs
    • Increase driver safety, productivity, and compliance

• Background in Statistics and Economics

• Previous roles:
  • Data Scientist at Speech Analytics, NLP start-up
  • Manager of Advanced Analytics and Strategic Initiatives at Travel/Leisure Fortune 500 firm
WORKING AS A DATA SCIENTIST
Roles in Data/Analytics

• Data Engineer
  • Responsible for data pipeline
  • Makes data mature for analysis

• Data Scientist
  • Applies machine learning algorithms to extract information
  • Usually deals with larger dataset

• Business Analyst (Business Intelligence Analyst)
  • Develops business cases
  • Creates data visualization for communication

• Other roles
  • Data Architect, Data Governance
What do Data Scientists do?

• Multidisciplinary role with different backgrounds
  • Software Development
  • Statistics/Machine Learning
  • Data Engineering
  • Business Analytics

• Extracting information from data for business
  • Developing KPIs
  • Establishing business strategies
  • Creating new products

• Diverse tools are in our arsenal
  • R, Python, SQL (Diverse databases), Tableau, Cloud
What makes them special?

• Usually considered as a “master key” to all problems
  • Unlike other role in data, data scientists are expected to have expertise in all areas.

• General expectation is to be well-versed in hard skills
  • Programming
  • Statistics/Machine Learning

• Soft skills make data scientists to stand out among other data scientists
  • Communicating results
  • Establishing business needs
Examples of applied projects

• Start-up
  • Word-based and tone-based sentiment analysis

• Fortune 500
  • Using customer vehicle preference to improve online retail
  • Developing real-time dashboards for operational KPIs

• Donlen (Subsidiary of Fortune 500)
  • Predicting unscheduled maintenance events using telematics
GETTING HIRED AS A DATA SCIENTIST
Application process

• Get your resume ready
  • Well prepared resumes stand out
  • Concisely highlight key factors about projects or role

• Find opportunities
  • Use tools like LinkedIn or Glassdoor to find roles that interest you
  • Data Scientist, Business Analyst, BI Analyst, etc.
  • Reach out to recruiters and hiring managers
Interview process

• Usually a three to four step process
  • Initial HR call to verify qualifications and interests
  • Technical screening with hiring manager or a team member
  • Coding challenge for data science project
  • On-Site interview with the team and execs

• Prepare for technical interview
  • Basic statistics
  • Machine learning algorithm
  • Coding brain teasers

• Prepare for behavioral interview
• Be mindful of your attitude
Offer process

- Most offers will be negotiable
  - Salary, cash bonus, equity
  - Benefits such as insurance, PTO
- Utilize Glassdoor and Paysa to find market rate and the average pay for the position at the company
- Keep in mind that experience level will make compensation vary greatly
- Consider cost of living when comparing multiple cities
  - Tax, housing cost, food price, etc.
- Be logical and realistic
  - Negotiations can be turned down and offers can be retracted