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# The Modern Data Org\*

\*for now.

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# Today's class

- Lecture Section
    - Discuss roles and responsibilities
    - Go over data interview loop
    - Stand Up - Career goals and aspirations
  - Break
  - Technical Session
    - Setup Github integration
    - Push a “Hello World” script
    - Demo data acquisition strategies
    - Create collective repository of data sources.
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# Roles on a Data Team

- Most teams may have the following
    - Data Scientists
    - Data Analysts
    - Data Engineers
  - Medium Size Teams may have
    - Machine Learning Engineers
    - Data Product Managers
    - Architects
    - Qualitative Researcher
  - Large Size Teams may have
    - Quantitative Researchers
    - Project Managers
    - AI Specialists
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# Data Analyst

- Tasks
    - Creates data products through reporting and visualization
    - Values speed and interpretability
    - Context shifting
    - “Ad hocs”
    - Domain expertise
  - Skills
    - SQL
    - Data visualization/dashboarding
      - Tableau
      - Looker
    - Basic statistics
    - Communication skills
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# Data Scientist

- **Tasks**
    - Often high degree of overlap with data analyst
    - Expected to “hunt” their own data in unstructured sources
    - Build statistical or machine learning models for inference or production
  - **Skills**
    - Scripting language (overwhelmingly Python)
    - SQL
    - Big data framework (BigQuery, Spark, Snowflake)
    - Version Control
    - Visualization and dashboarding
    - Communication
    - Team management
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# Data Engineer

- Tasks
    - Get the data where it needs to go.
    - Maintain and support databases
  - Skills
    - Scripting language (Scala is popular)
    - Database admin skills
    - Deep understanding of given data platform
    - Machine Learning deployment and operations
    - Error logging and real time alerting
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# Other Roles

- Researchers
    - UX Researchers attempt to improve usability of a product.
    - Consumer Insights researchers learn more about the user.
      - Generally will be qualitative or lightly quant
        - Survey work
        - Net Promoter Score
        - Light clustering/segmentation
    - Quant Researchers are more rare, bleed over with data scientists
      - Difference is interoperation with Qual research (mixed methods)
      - Focus on UX or CI domains specifically.
      - Less machine learning.
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# Other Roles Cont

- ML Engineer
    - Focused on creating and deploying ML or Statistical models
    - Rarely does analytics work unlike a DS
    - Often high specialized
  - Product Manager
    - Keeps team on task
    - Organizes rituals like stand-up or Kanban
    - “Sh\*t umbrella\* allows people to work
  - Project Manager
    - Sets the vision for the organization
    - Allocates resources and builds the team
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# Day in the Life

- Morning- Coffee, dealing with fires
  - Standup, meetings, 1:1s
  - Stakeholder management, preparation.
  - Lunch
  - Code time, develop data products
  - Peer review and team building
  - 10% time for longshots
  - Misc tasks
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# Interview Loop

- Recruiter Screen
    - Basic skills, verify resume, vibe check?
  - Hiring Manager Screen
    - Do they want you on their team?
  - Technical Screen
    - Can range for questions, live coding, take home assignment
    - Beware of abusive hiring practices at this stage
  - “Onsite”
    - Full day of interviews
    - Wide range of stakeholders
    - Generally final stage.
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# Offer

- Salary
  - Perks
    - Retirement matching
    - Spending accounts
    - Health care
  - Equity
    - Incentive stock options.
      - The ability to purchase stock for a certain amount after a “vesting” period.
    - RSUs/Stock Grant
      - Stock given to you.
    - Cash bonus alternatives.
      - Taxation is important!
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**Questions?**

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