DATASCI IN FINANCE

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http://tiny.cc/datasci-finance
VIRTUOUS CIRCLE

Passion

Supply / demand

Unique ability
MY BACKGROUND

- Early 10s: computer games+admin, coding
- Late 10s: tech entrepreneur
- Early 20s: finance, M&A
- Late 20s: data-driven investment research
- Early 30s: data science
WHAT WE DO

• Value add:
  • Behavioral analytics
  • Alpha generation
  • Portfolio/Risk management
  • Biz dev

• School Subjects Used: coding, optimization, machine learning, stats/econometrics

• Subjects not learned in school: (software) engineering, portfolio management, investments / markets (CFA), company/market valuation (CFA), AI, marketing/sales
HOW WE DO IT

- Reference: Quant stack
HOW WE DO IT

- Data science stack

- PostgreSQL
- Hadoop
- Python
- Excel
- Web
- API

No SQL
HOW WE DO IT

- Datascience stack details
  https://github.com/citynorman/datasci-finance/blob/master/references.ipynb
INTERVIEW PROCESS

- 15mins phone screen
- Complete coding test
- 30mins with team members
- Work on creative project
- Present project and 30mins with senior managers
CODING TEST

- Pandas munging (ETL): indexing, altering
- Pandas computations: grouping, rolling apply
- Linux CLI
- SQL
- Stats: time series modeling
- Machine learning: CV, RF
- Portfolio Optimization
- Bonus: hadoop spark
CODING PREP

DATASCI BEYOND FINANCE

• Virtual (shopping) assistants (Techcrunch, Mastercard)
• VR (Stamford innovation center)
• Expertise finding (Fintech #2)
• Document tracking (Fintech #1)
• Robotics for kids
• Open source portfolio management
DATASCI FRONTIER

- https://github.com/citynorman/datasci-finance/blob/master/references.ipynb