



How To Learn Fast!

Your 30-Minute Playbook to **Success**

Matt Dancho & David Curry
Business Science Learning Lab

Learning Lab Structure

- **Presentation**
(30 Minutes)
- **Q&A**
(15 Minutes)



Your Hosts!



Matt Dancho

Founder of Business Science, Matt designs and executes educational courses and workshops that deliver immediate value to organizations. His passion is **up-leveling future data scientists** coming from **untraditional backgrounds**.



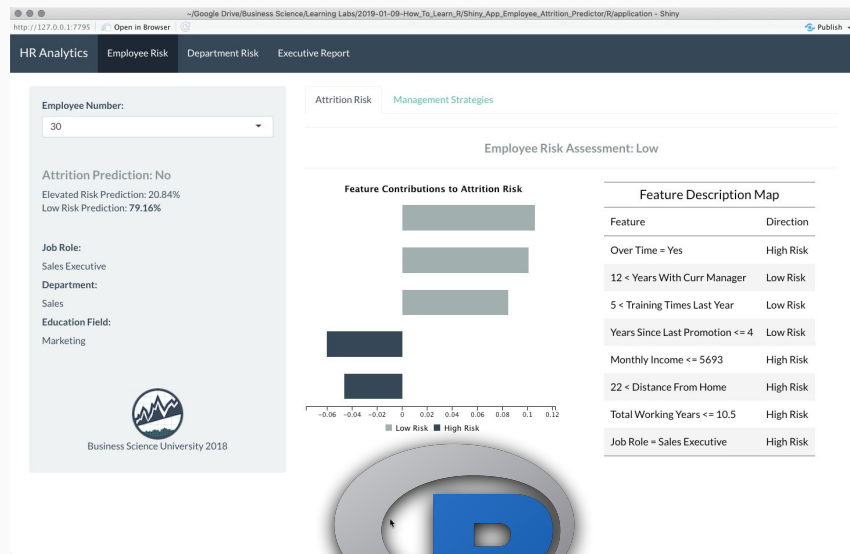
David Curry

Founder of Sure Optimize, David works with businesses to help improve website performance and SEO using data science. His passion is **ethical Machine Learning initiatives**.



Agenda: How to Learn R Fast!

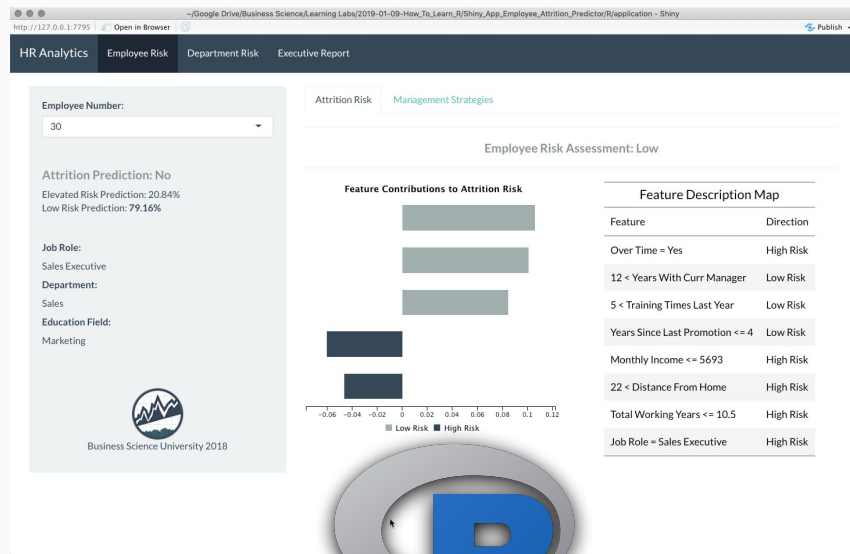
- Shiny Web App Example
- Data Science Workflow:
Where Does R Fit In?
- What We Know About Learning R
- Strategies to Learn R Fast!
- Your Playbook for Success





Agenda: How to Learn R Fast!

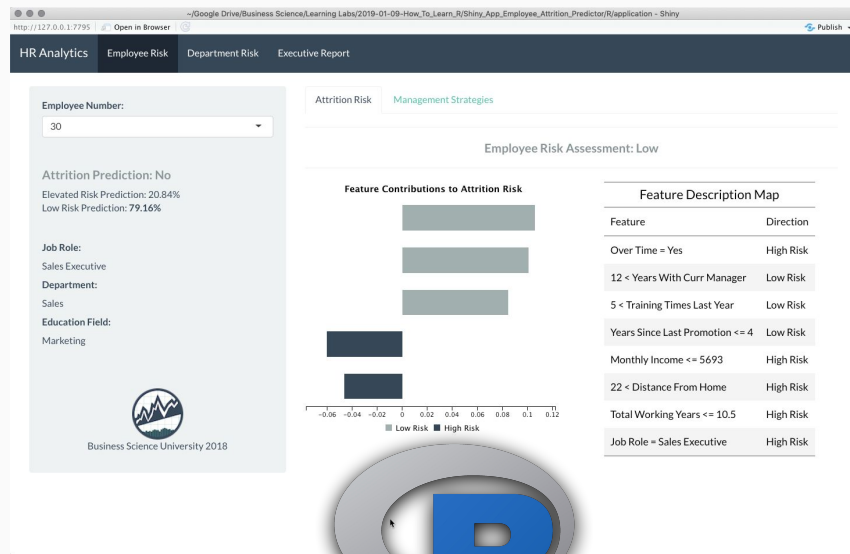
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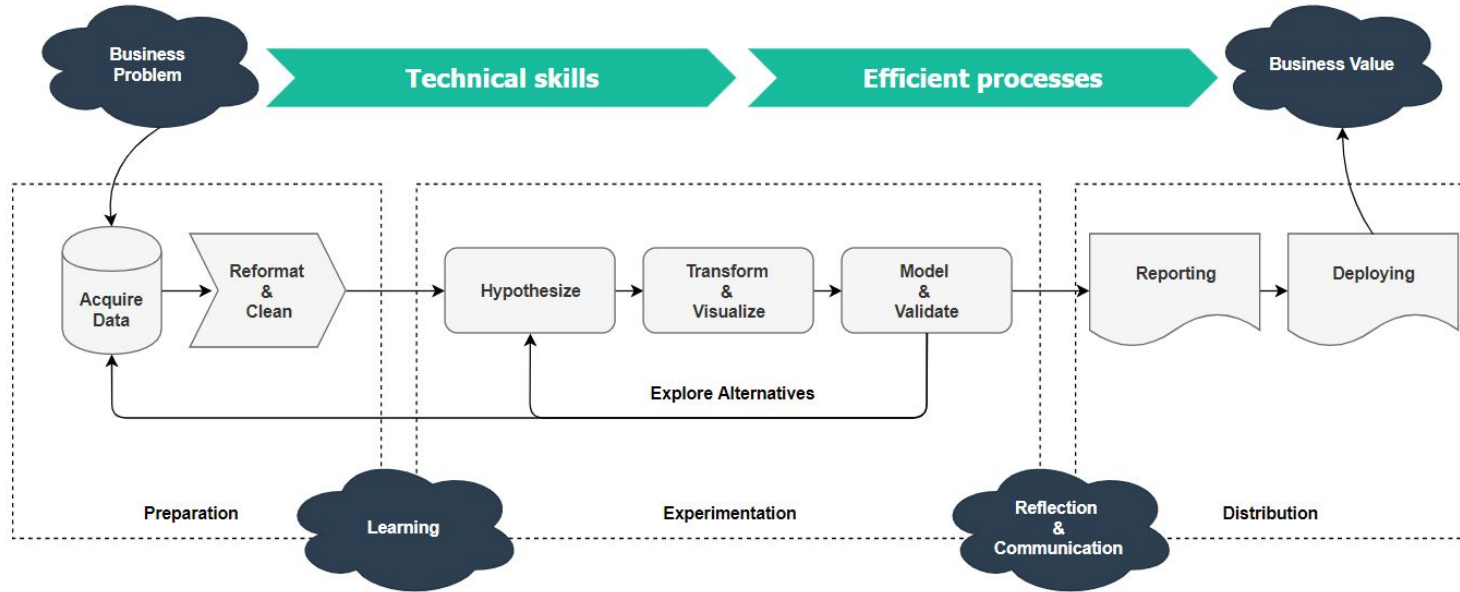


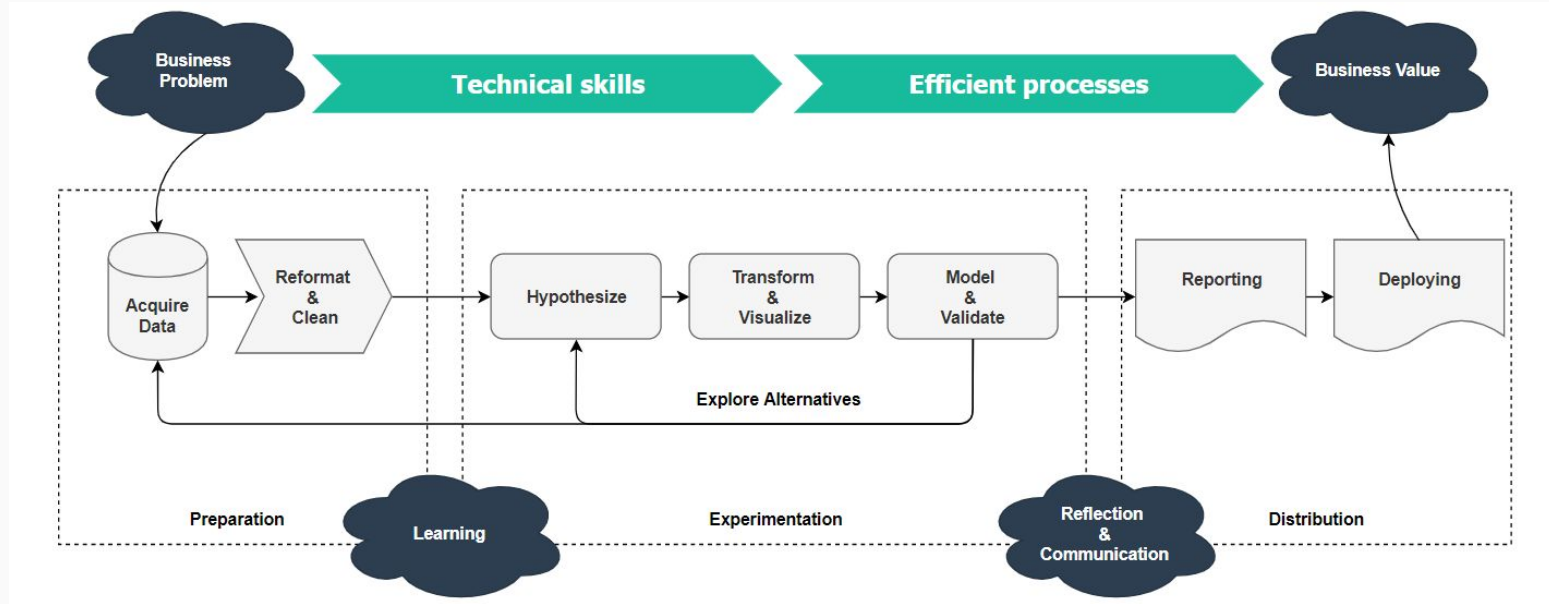
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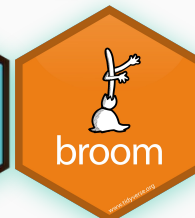
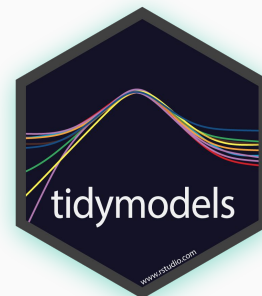
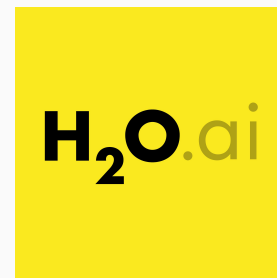


Data Science Workflow

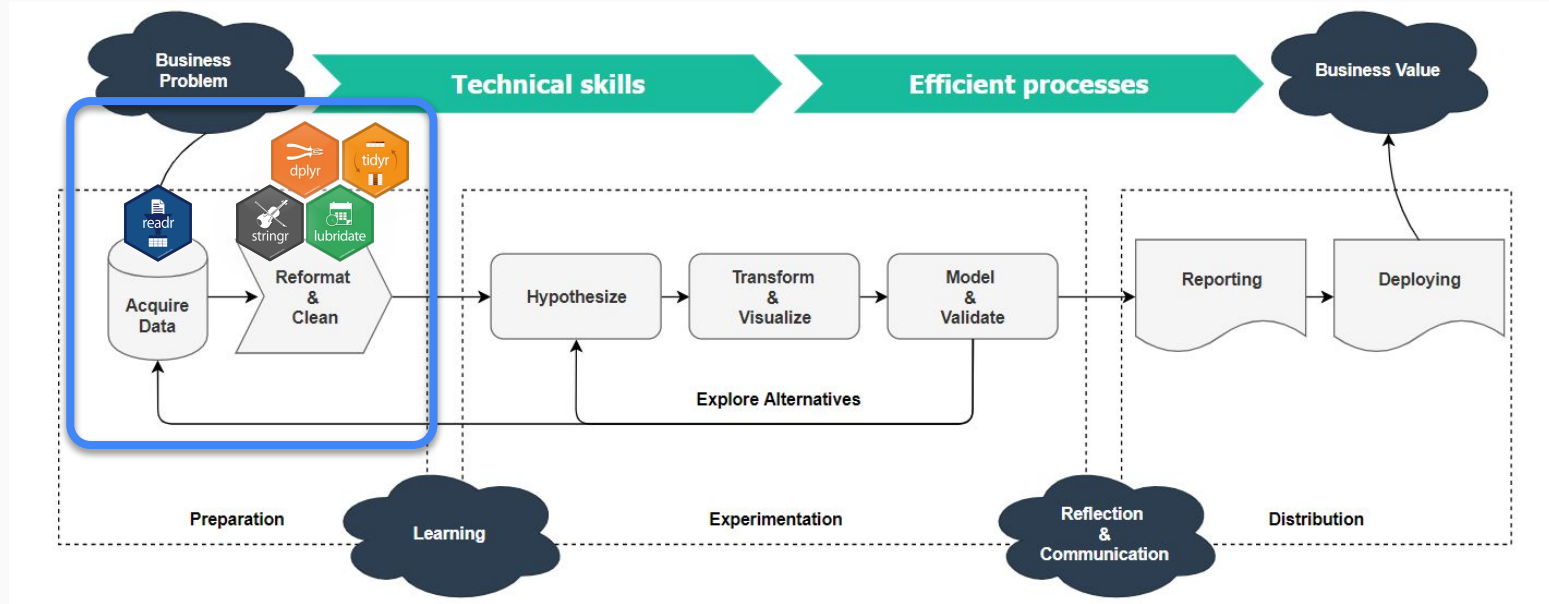




Where does  fit in?

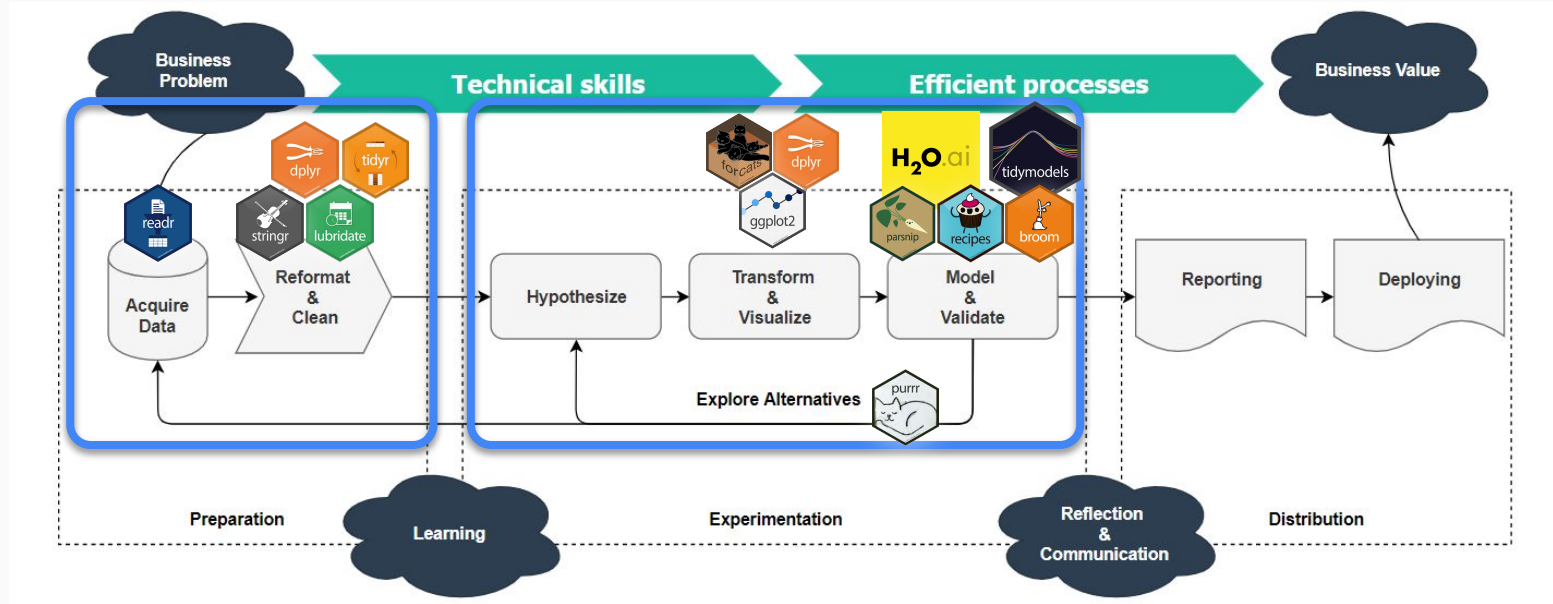


The  Toolchain



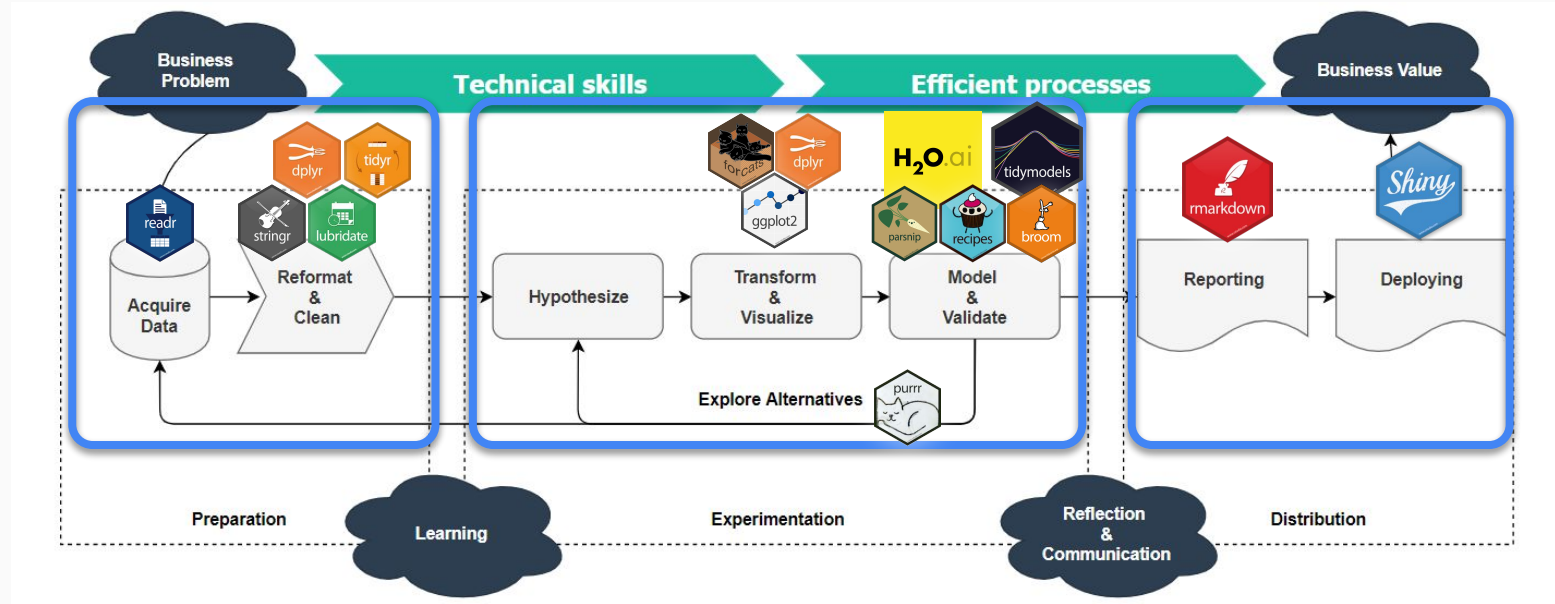
Experimentation





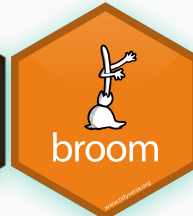
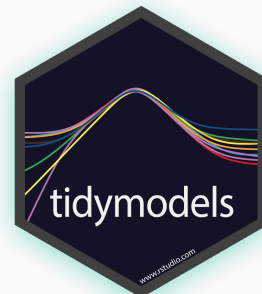
Experimentation





Distribution



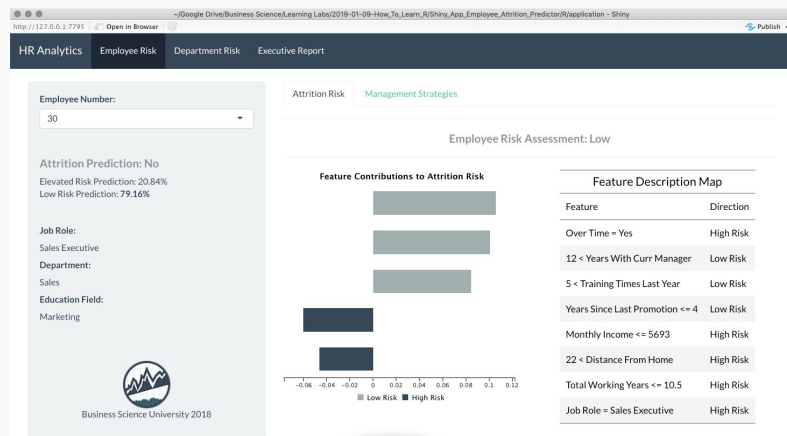


Amazing Toolchain for **End-to-End Projects**

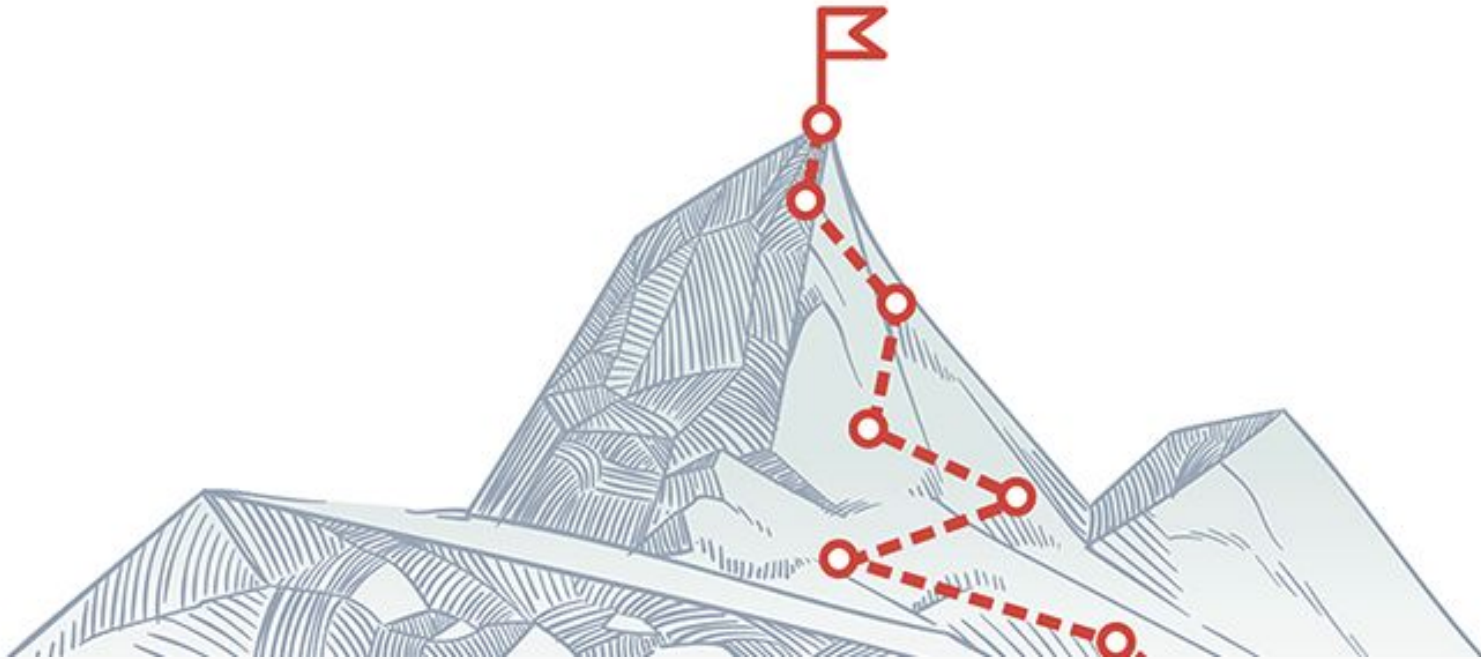


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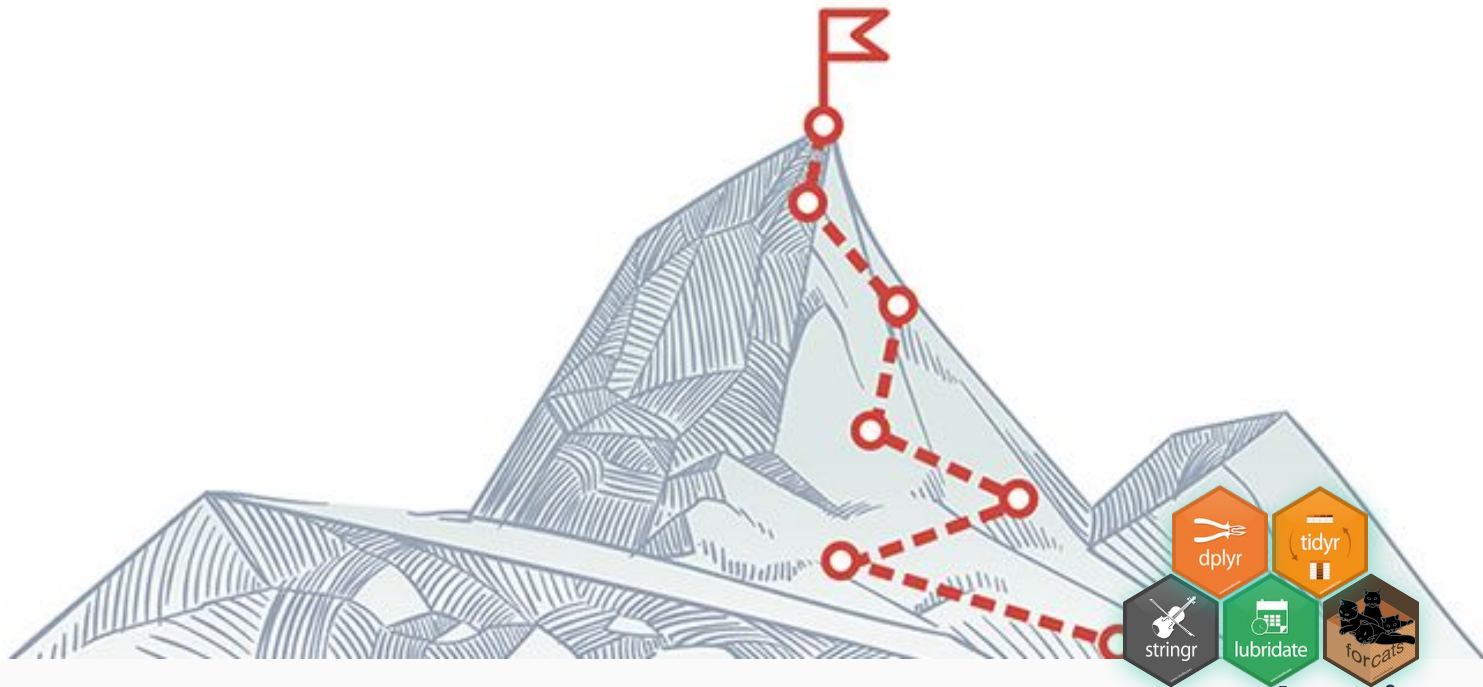
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Learning R is a Hill Climb

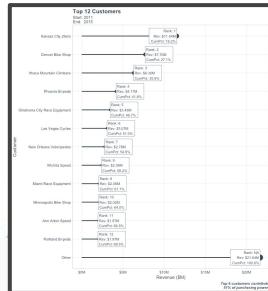


Learning R is a Hill Climb



**Data Cleaning
& Manipulation**

Learning R is a Hill Climb



Analysis of Customer Purchasing Habits

| Customer | Metric 1 | Metric 2 | Metric 3 | Metric 4 | Metric 5 | Metric 6 | Metric 7 | Metric 8 | Metric 9 | Metric 10 |
|-----------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|
| Robert J. Davis | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 |
| Robert J. Davis | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 |
| Robert J. Davis | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 |
| Robert J. Davis | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 |
| Robert J. Davis | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 |
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| Robert J. Davis | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 |
| Robert J. Davis | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 |
| Robert J. Davis | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 |
| Robert J. Davis | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 |
| Robert J. Davis | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 |
| Robert J. Davis | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 |

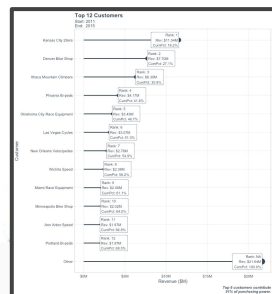
Visualization



Data Cleaning
& Manipulation



Learning R is a Hill Climb



| Customer | Segment | Revenue | Profit | Margin | Volume | Frequency | Recency | Retention | Churn | Score |
|----------------|---------|---------|---------|--------|--------|-----------|---------|-----------|-------|---------|
| Advanced Group | 1 | 1000 | 100 | 10% | 10000 | 100 | 1000 | 1000 | 10% | 100 |
| Advanced Group | 2 | 800 | 80 | 10% | 8000 | 80 | 800 | 800 | 10% | 80 |
| Advanced Group | 3 | 600 | 60 | 10% | 6000 | 60 | 600 | 600 | 10% | 60 |
| Advanced Group | 4 | 400 | 40 | 10% | 4000 | 40 | 400 | 400 | 10% | 40 |
| Advanced Group | 5 | 200 | 20 | 10% | 2000 | 20 | 200 | 200 | 10% | 20 |
| Advanced Group | 6 | 100 | 10 | 10% | 1000 | 10 | 100 | 100 | 10% | 10 |
| Advanced Group | 7 | 50 | 5 | 10% | 500 | 5 | 50 | 50 | 10% | 5 |
| Advanced Group | 8 | 25 | 2.5 | 10% | 250 | 2.5 | 25 | 25 | 10% | 2.5 |
| Advanced Group | 9 | 12.5 | 1.25 | 10% | 125 | 1.25 | 12.5 | 12.5 | 10% | 1.25 |
| Advanced Group | 10 | 6.25 | 0.625 | 10% | 62.5 | 0.625 | 6.25 | 6.25 | 10% | 0.625 |
| Advanced Group | 11 | 3.125 | 0.3125 | 10% | 31.25 | 0.3125 | 3.125 | 3.125 | 10% | 0.3125 |
| Advanced Group | 12 | 1.5625 | 0.15625 | 10% | 15.625 | 0.15625 | 1.5625 | 1.5625 | 10% | 0.15625 |

Visualization



Functional
Programming &
Modeling

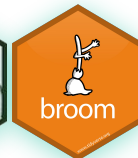


Data Cleaning
& Manipulation

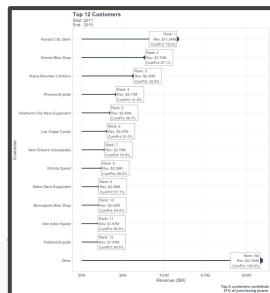
Learning R is a Hill Climb



**Advanced
Data Science**



**Functional
Programming &
Modeling**



Analysis of Customer Purchasing Habits

| Customer | Revenue | Profit | Margin | Score |
|--------------|-----------|---------|--------|-------|
| Albert Heijn | 1,234,567 | 123,456 | 10% | 85 |
| Albert Heijn | 1,234,567 | 123,456 | 10% | 85 |
| Albert Heijn | 1,234,567 | 123,456 | 10% | 85 |
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| Albert Heijn | 1,234,567 | 123,456 | 10% | 85 |
| Albert Heijn | 1,234,567 | 123,456 | 10% | 85 |
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| Albert Heijn | 1,234,567 | 123,456 | 10% | 85 |
| Albert Heijn | 1,234,567 | 123,456 | 10% | 85 |
| Albert Heijn | 1,234,567 | 123,456 | 10% | 85 |



Visualization



**Data Cleaning
& Manipulation**

Learning R is a Hill Climb

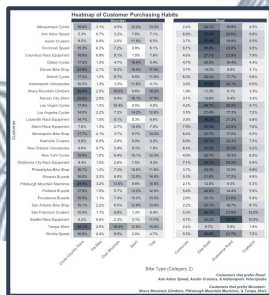
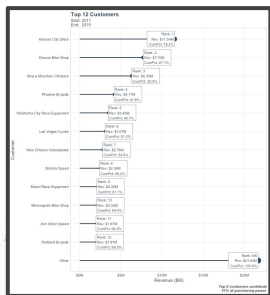
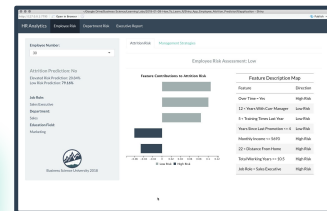
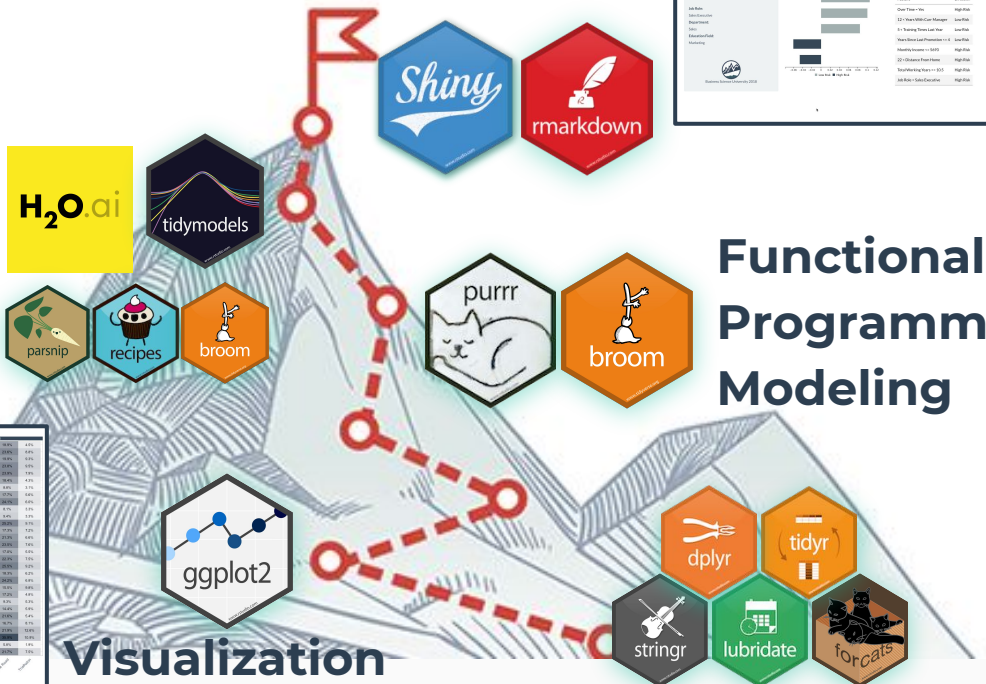


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Visualization

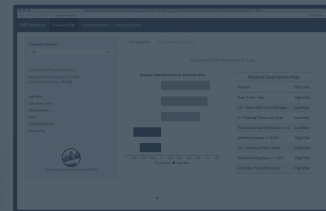
**Data Cleaning
& Manipulation**



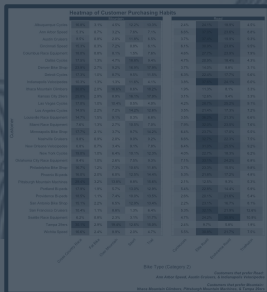
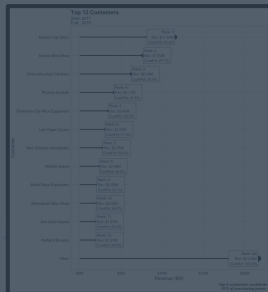


Path To Top Can Be Accomplished FAST

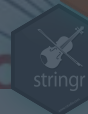
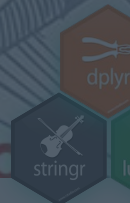
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Visualization

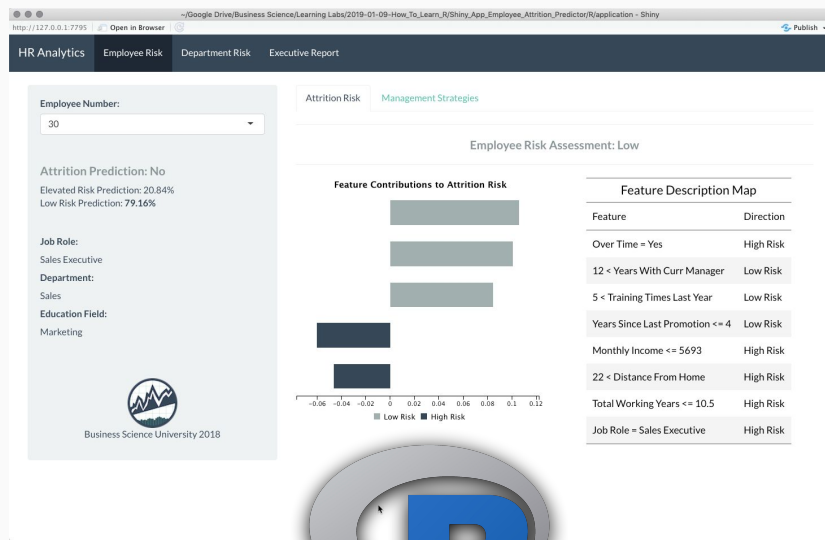


Data Cleaning
& Manipulation



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80/20

Focus on learning **top 20%** of functions and packages 1st



How To Learn R, Part 1: Learn From A Master Data Scientist's Code

Written by Matt Dancho on March 3, 2018

Categories: Learning-R

Tags: R-Project, R, Learning Data Science, Text Analysis, Web Scraping, rvest, fs, tidyverse

34



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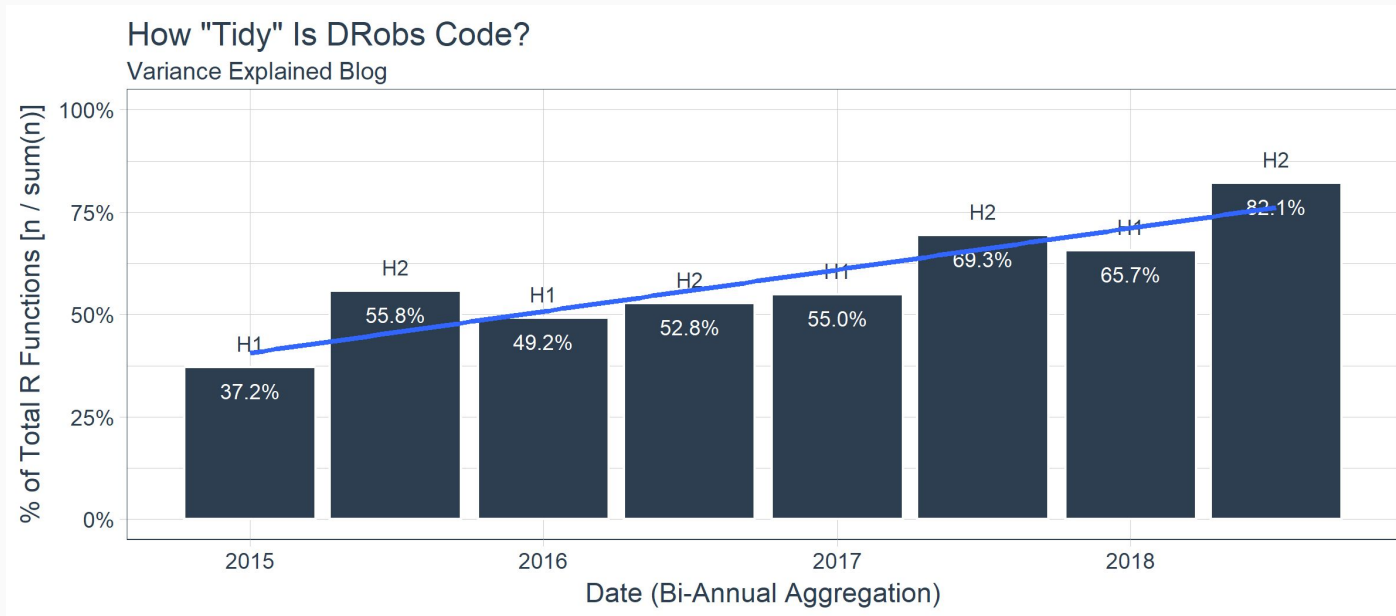
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Source: https://www.business-science.io/learning-r/2018/03/03/how_to_learn_R_pt1.html

Top 20% Functions



Top 20% Packages

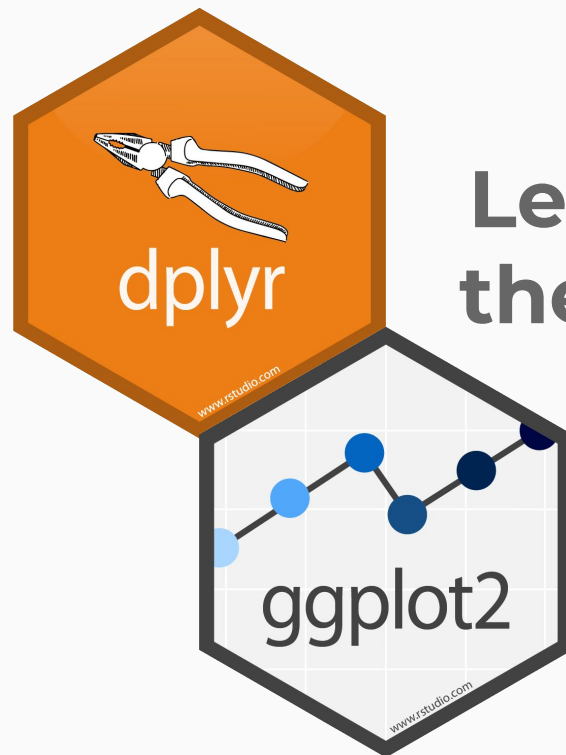
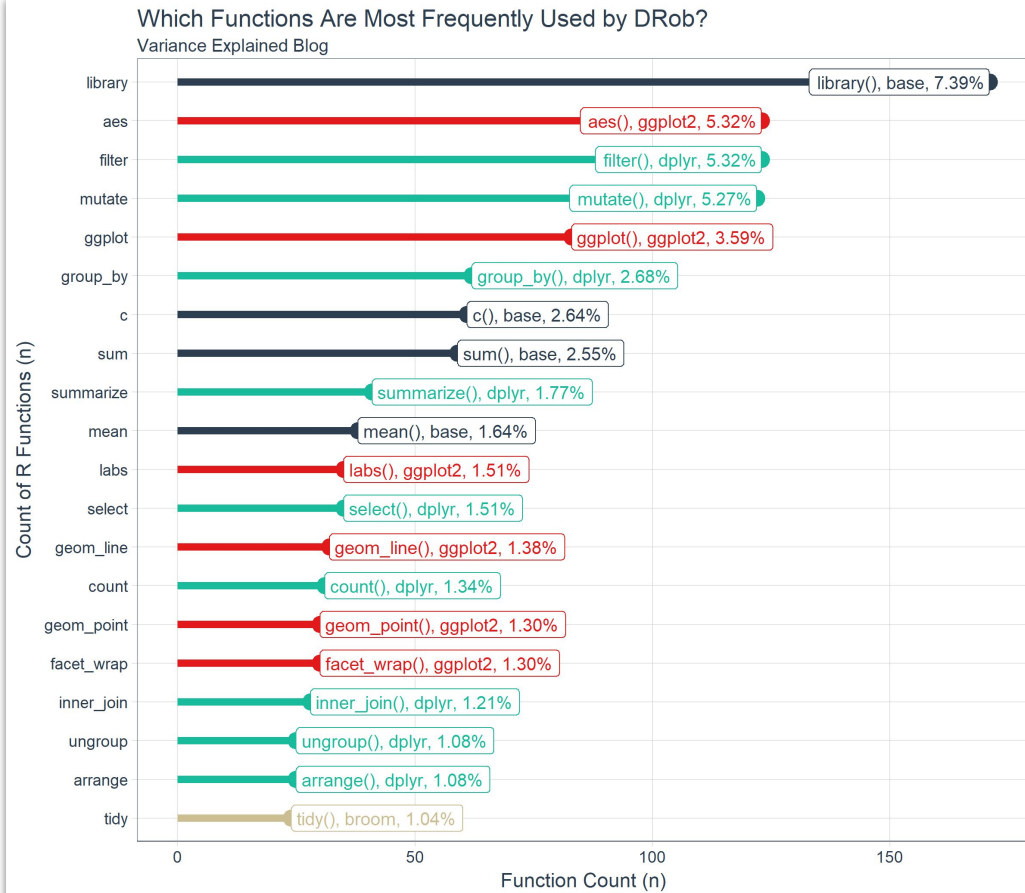


Which Packages Are Most Frequently Used by DRob?

Variance Explained Blog

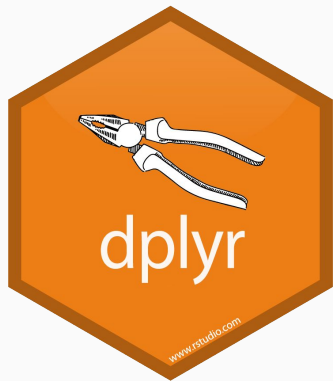


Top 20% Functions

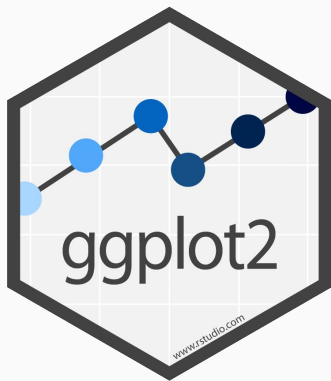


Learn
these!

Quick Demo



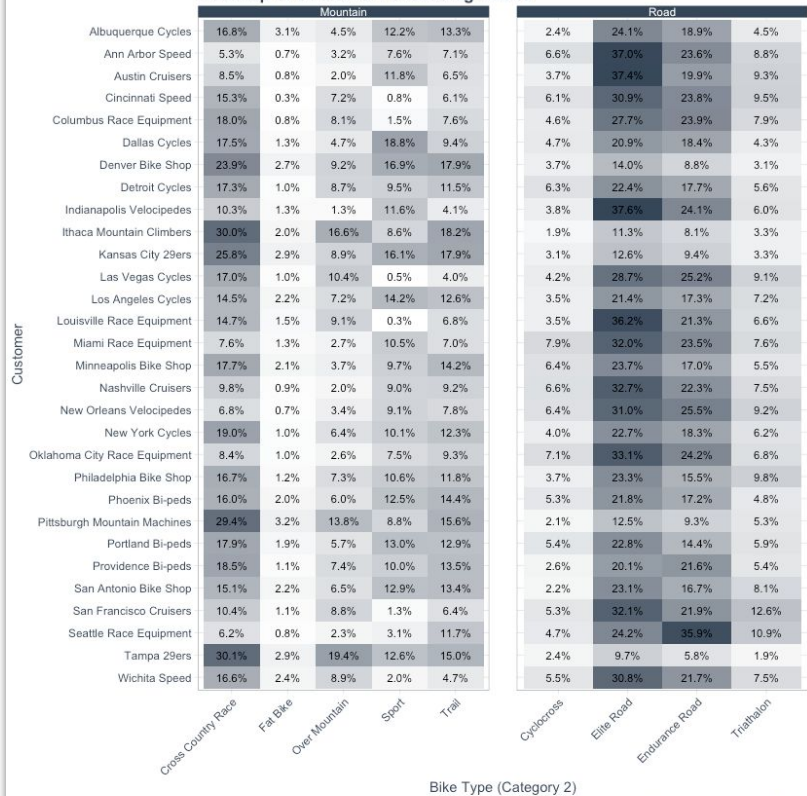
Manipulation



Visualization



Heatmap of Customer Purchasing Habits



Bike Type (Category 2)

Customers that prefer Road:
Ann Arbor Speed, Austin Cruisers, & Indianapolis Velocipedes

Customers that prefer Mountain:
Ithaca Mountain Climbers, Pittsburgh Mountain Machines, & Tampa 29ers

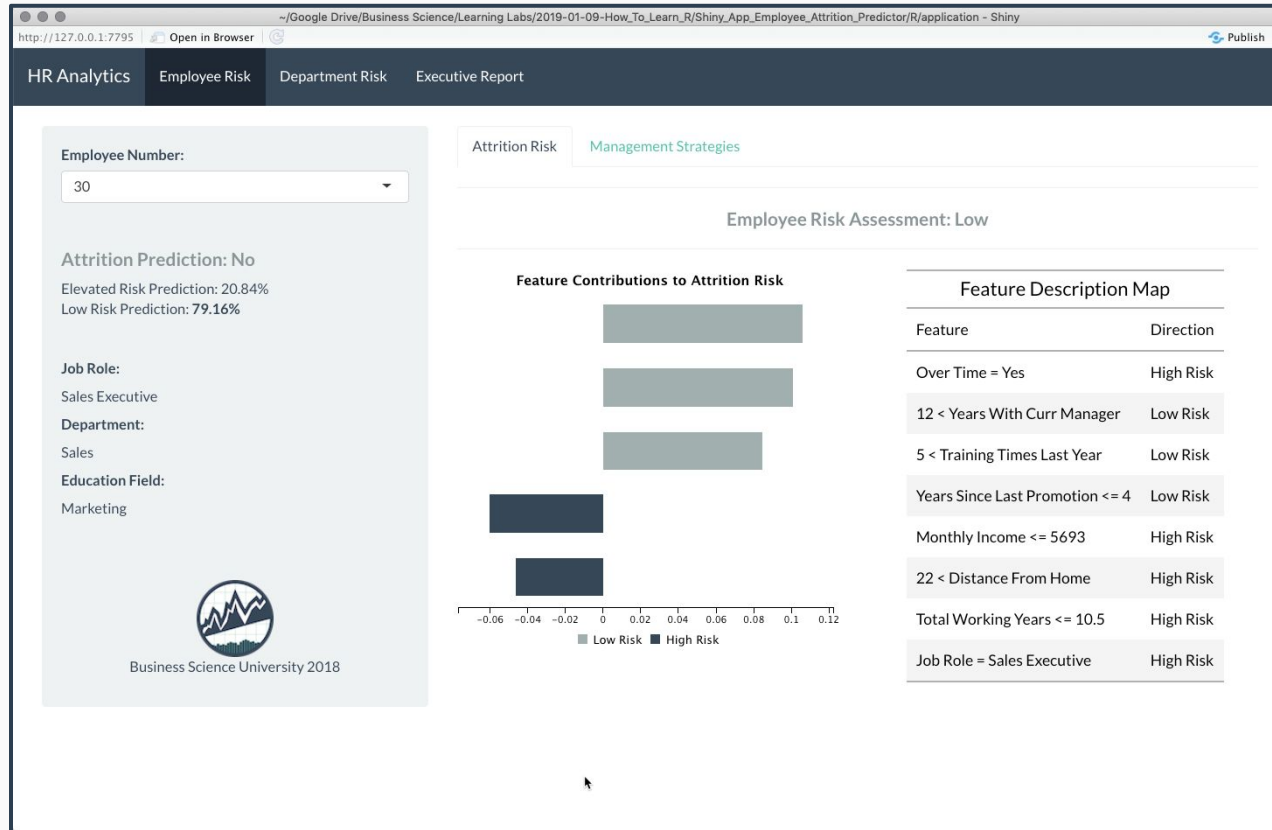
Speed Up

Your learning with **Cheat Sheets**

Do Projects

Apply your learning to relevant projects

Speed Up Learning: The ULTIMATE R Cheat Sheet



Strategy Recap

Keys to Learning R Fast!



1. **Apply 80/20 Rule**

Learn functions that are frequently used

2. **Use ULTIMATE R CHEAT SHEET**

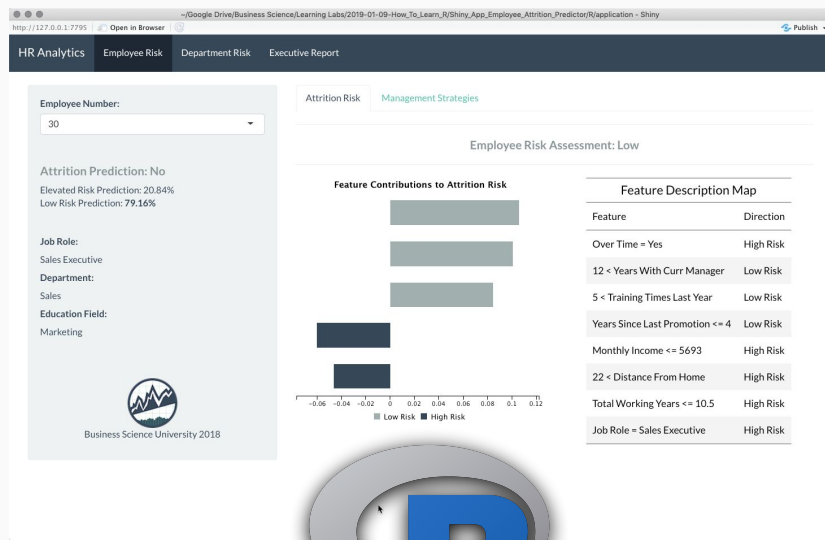
Connects to critical R Packages

3. **Do Projects**



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Your Playbook for Success

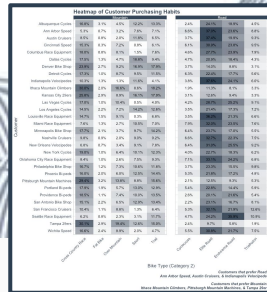
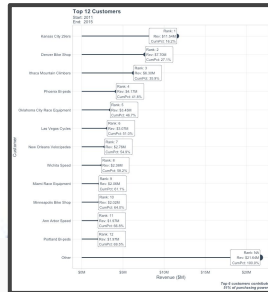
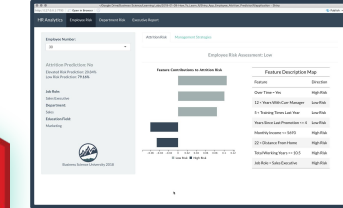


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Visualization

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**Data Cleaning
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Your Playbook for Success



NEW!!

DS4B 101-R: Business Analysis With R

Your Data Science Journey Starts Now! Learn the fundamentals of data science for business with the tidyverse.

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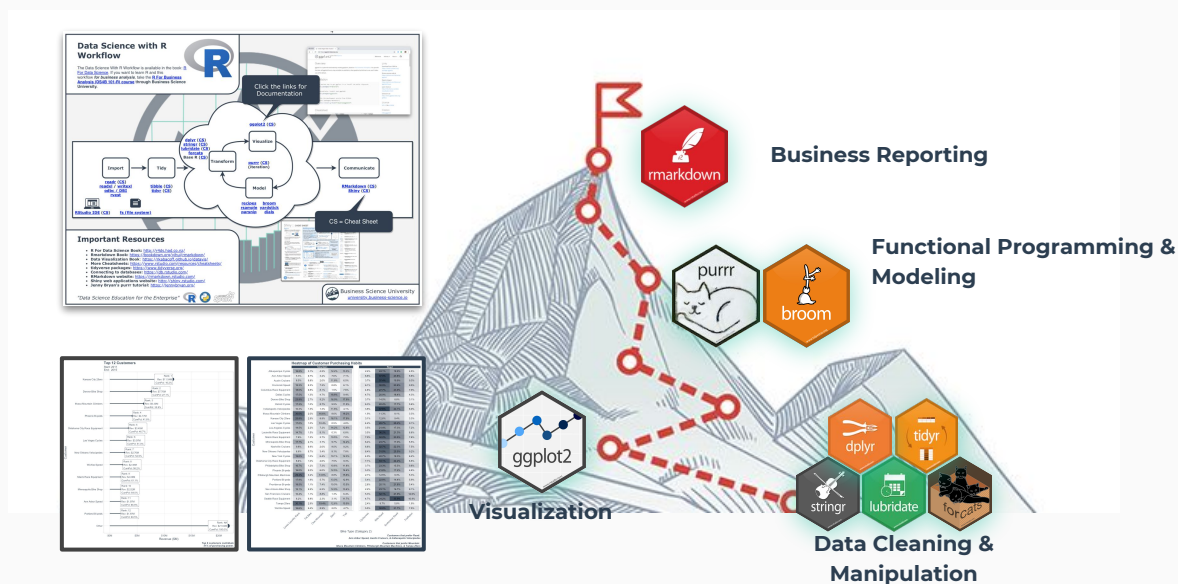
MSRP: ~~\$349~~

Your Price! **\$297**

Save: \$52

2 Business Projects:

- Customer Segmentation (K-Means Clustering)
- Product Pricing Algorithm (Regression)



Your Playbook for Success



DS4B 201-R: Data Science For Business With R

Solve a real-world churn problem with H2O AutoML (automated machine learning) & LIME black-box model explanations using R

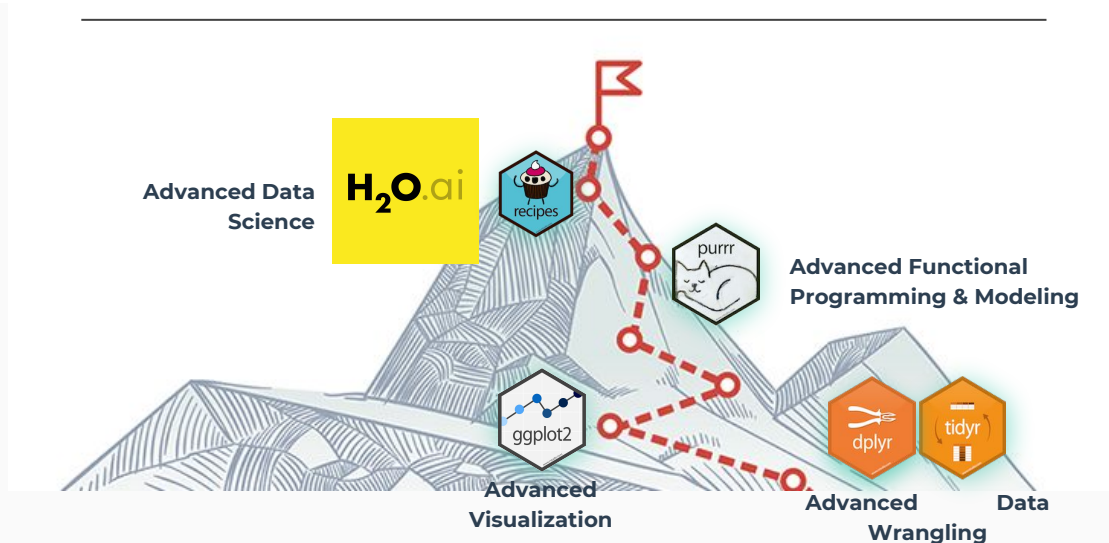
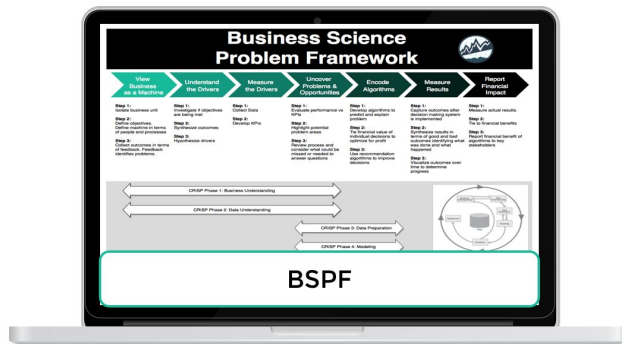


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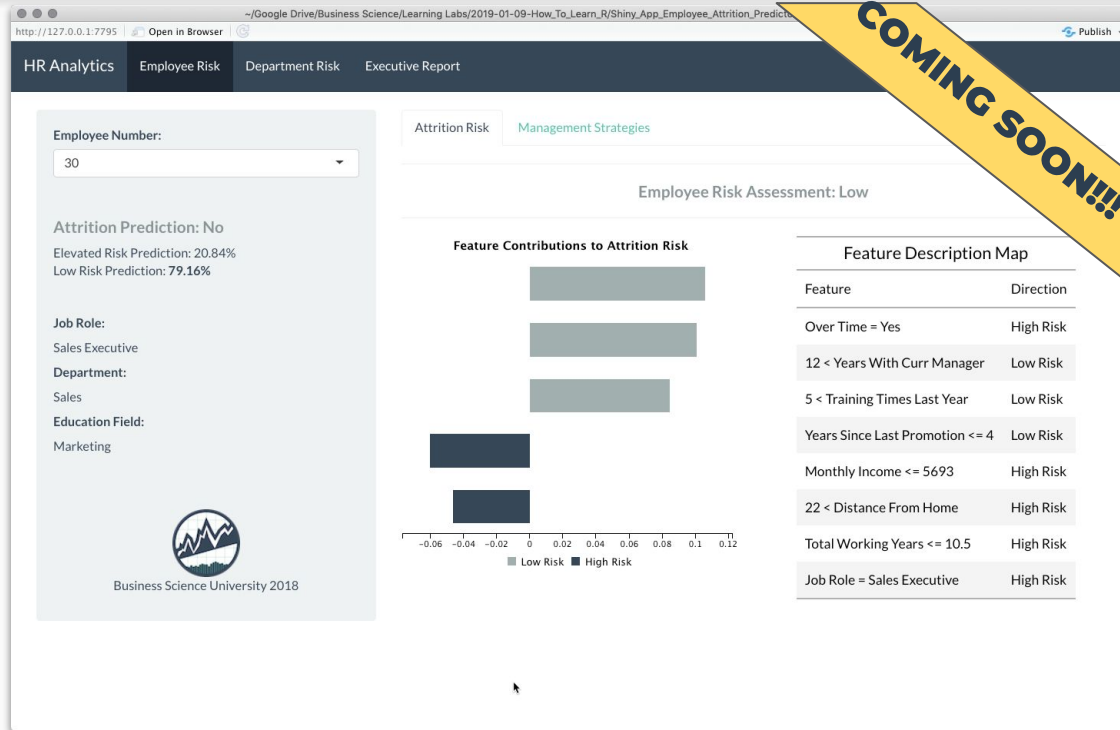
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Your Playbook for Success



Coming soon! **Shiny Web Apps**



Your Playbook for Success



Courses Included with Purchase



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Solve a real-world churn problem with H2O AutoML (automated machine learning) & LIME black-box model explanations using R



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BEST VALUE

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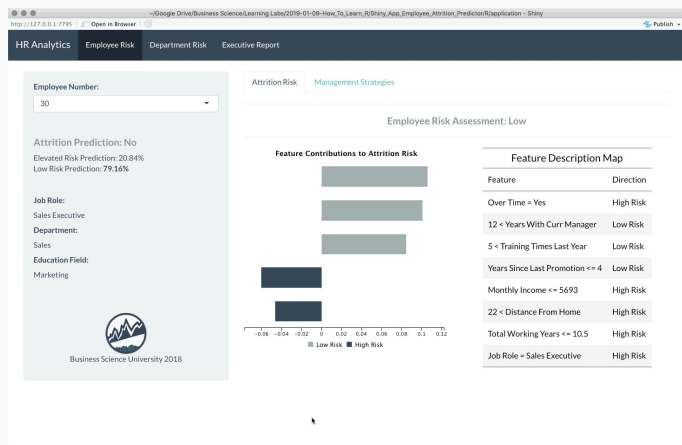
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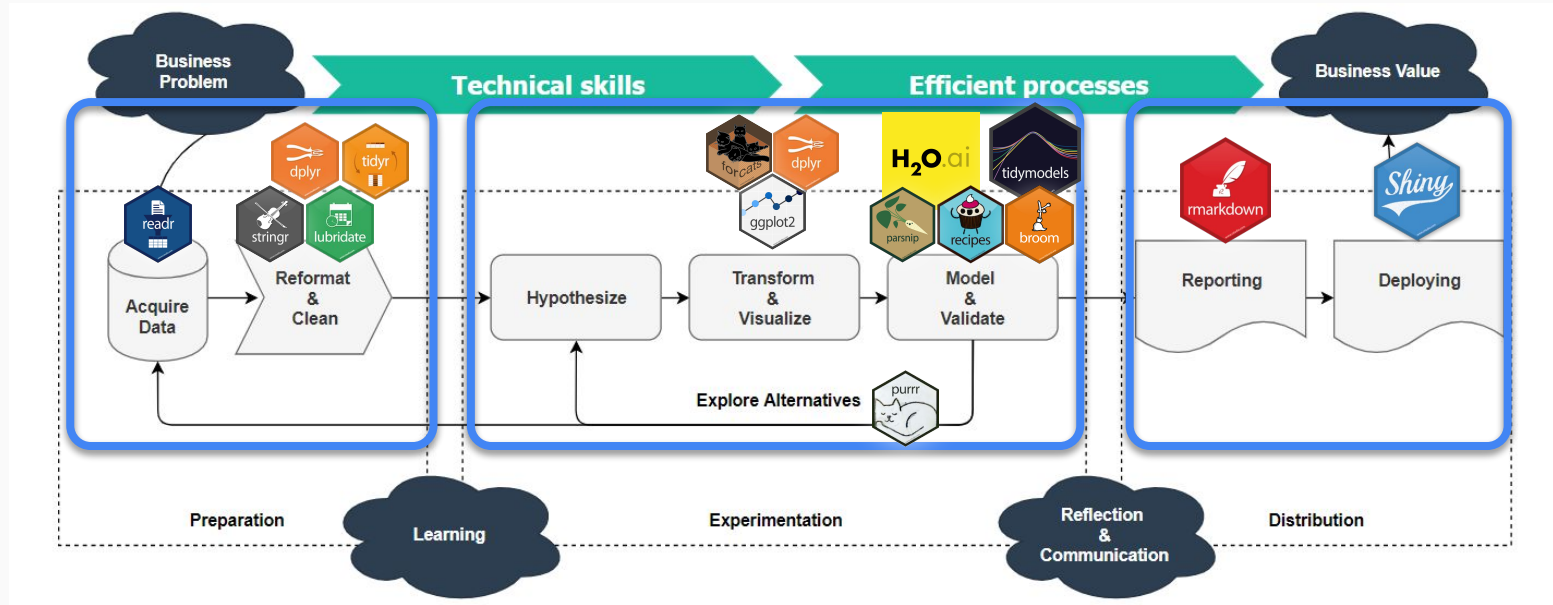
-TRACK BUNDLE



RECAP: How to Learn R-Fast!

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Tools **Fit Perfectly** Into Our Workflow!

Learning R is a Hill Climb



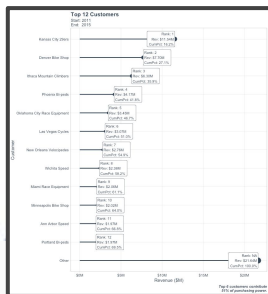
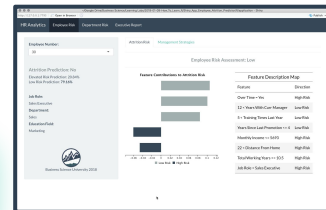
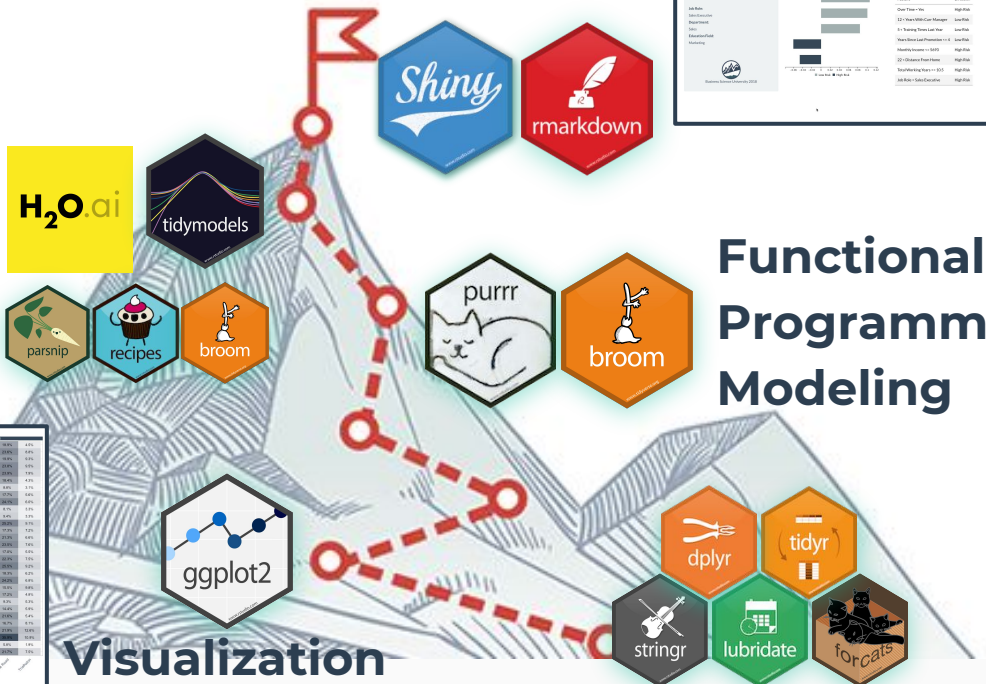
...But it can be done quickly

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Modeling

Visualization

Data Cleaning
& Manipulation



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Save: \$52



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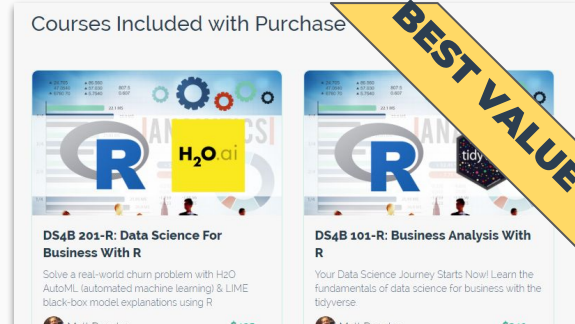
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 **-TRACK BUNDLE**

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