

DATA SCIENCE

11 WEEK PART TIME COURSE

Week 1 – Course Overview & Getting Started

1. Meet The Instructors
2. Meet Your Classmates
3. Instructor Philosophy
4. Content Philosophy
5. How To Succeed
6. Typical Class
7. Logistics
8. Course Project
9. Setting Up

IAN HANSEL - INSTRUCTOR

Data scientist at Caltex, previously working in the areas of fraud detection, insurance and web analytics. Provided analytics services for businesses ranging from startups to ASX100 listed companies

ALASDAIR DOUGLAS - TA

Data scientist at Servian, providing analytics services for blue chip companies such as Commonwealth Bank of Australia. Forward thinking, entrepreneurial and engaged with the data science community in Sydney.

ABOUT YOU ?

- Who are you?
- Why are you interested in Data Science?
- Have you done anything with Python (or R)?
- What is your exposure to Data Science so far?
- Do you have any applications in mind?

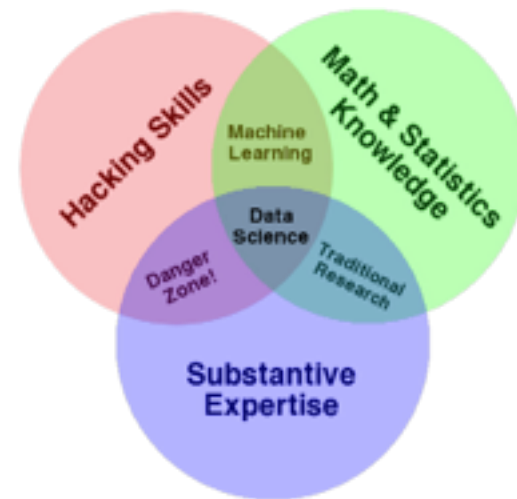
- Embrace Diversity
- Seek an Optimal Pace
- Communicate Early and Often
- Success is not a grade, it's an application

- Application-based Approach
- Understand Key Principles
- Balance Depth and Breadth
- Course Project

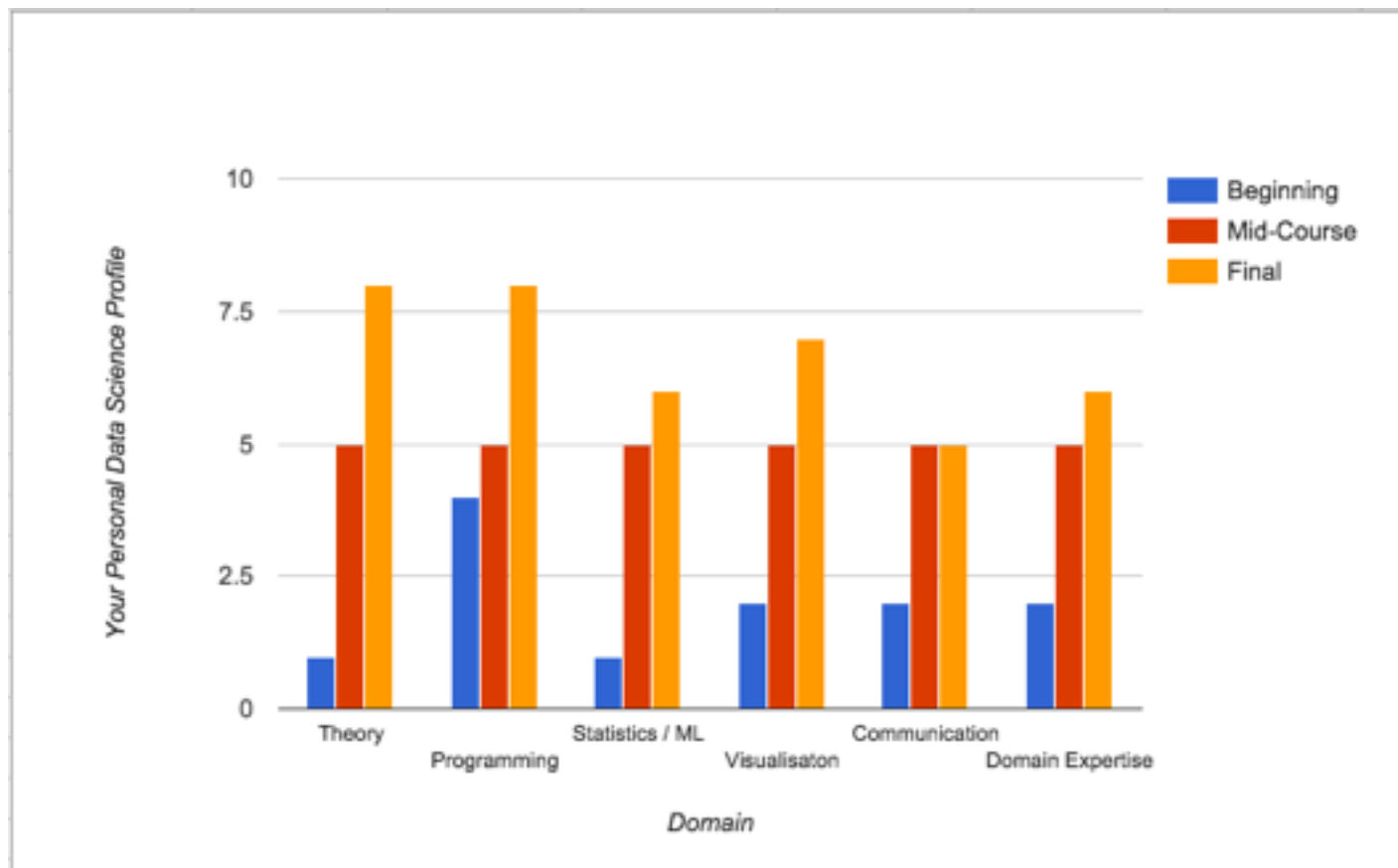


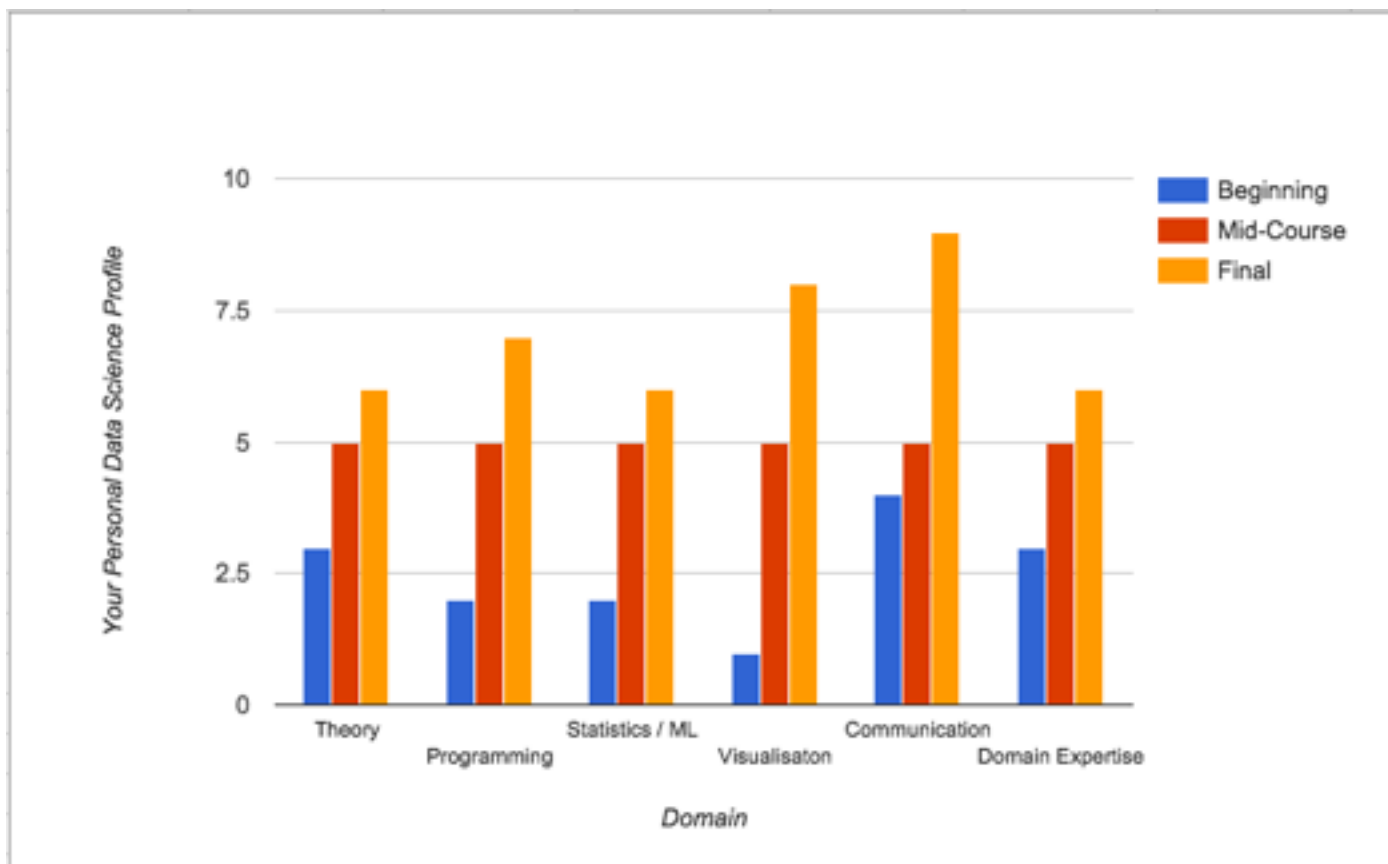
- Multidisciplinary Investigations
- Models and Methods for Data
- Computing with Data
- Pedagogy
- Tool Evaluation
- Theory

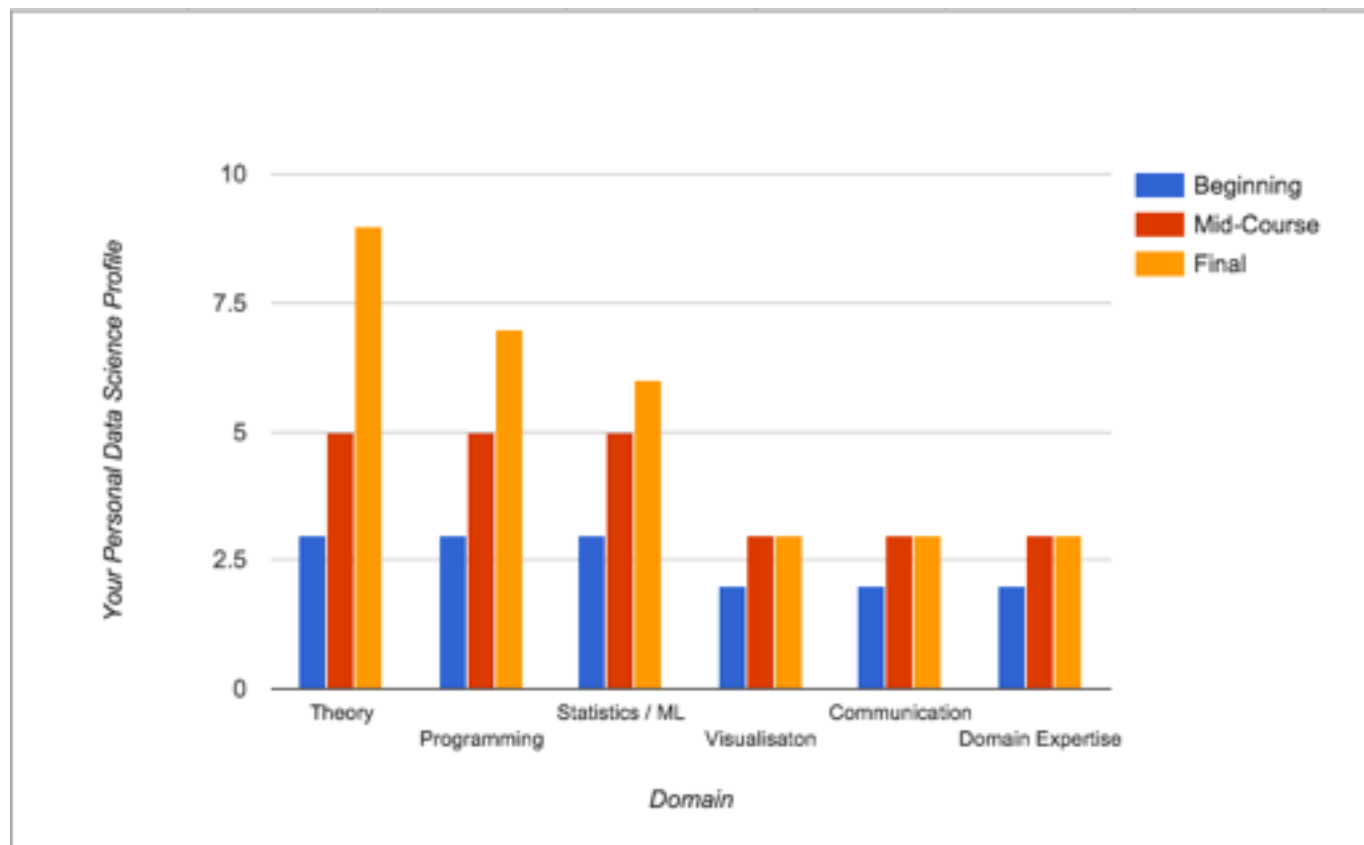
Data Science: An Action Plan for Expanding the Technical
Areas of the Field of Statistics
William S. Cleveland

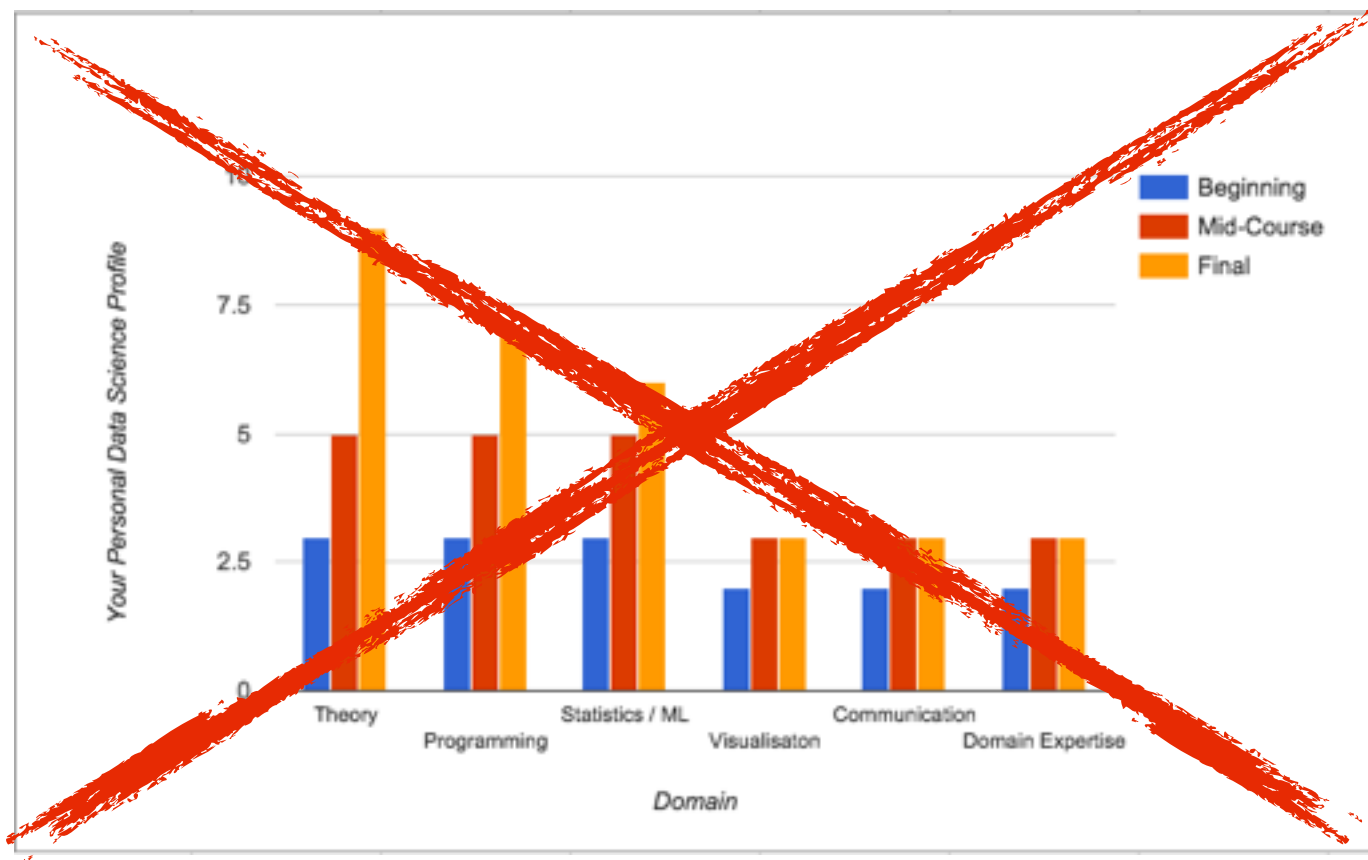


Drew Conway's
Data Science Venn Diagram









HOW TO SUCCEED

13

- Effort not prior knowledge
- Ask Questions
- Communicate what you've learned
- Help your Classmates
- Be patient with yourself

- Guest Speaker (sometimes)
- Overview of lesson objectives
- Motivating Problem
- Theory
- Lab
 - Code Walk Through
 - Code Exercises
- Class Discussion
 - Homework
 - Readings

- Food
- Dress Code
- Start and end on time
- Missing Class
- Slack Instead of Email
- Office Hours
- Github for course content and homework



The final project should represent significant original work applying data science techniques to an interesting problem. Final projects are individual attainments, but you should be talking frequently with your instructors and classmates about them.

Address a data-related problem in your professional field or a field you're interested in. Pick a subject that you're passionate about; if you're strongly interested in the subject matter it'll be more fun for you and you'll produce a better project!

Look at past projects on the github account for some ideas.

DISCUSSION TIME

Pework

- **Software Installations**
 - **Anaconda Python 2.7**
 - **Git Client (and github account)**
 - **Slack (and account setup - WITH PHOTO!)**

DISCUSSION TIME

Pework

▸ Readings

- Metacademy Learning Plan**
- Data Science Handbook**
- An Introduction to Statistical Learning**

DISCUSSION TIME

Pework

‣ Optional Readings

- Codecademy Python course**
- Python for Data Analysis**
- Learn Python the Hard Way**
- Command Line Crash Course**
- Khan Academy – Probability**

- # books-resources
- # general
- # homework
- # instructional-team
- # meetups-events
- # news
- # presentations

- # random
- # software

- slackbot
- eladair
- jared
- meggan
- mikaela
- sofia_alfonso
- thelocker

#prework

This is the very beginning of the [#prework](#) channel, which you created yesterday. The purpose of this channel is: *Ask any questions about the pre-work for the course.* ([edit](#)).

+ Add a service integration Invite others to this channel

Yesterday

**ihansel** 1:53 PM

joined #prework

**ihansel** 1:53 PM

set the channel purpose: Ask any questions about the pre-work for the course.

**mikaela** 1:53 PM

joined #prework by invitation from @ihansel, along with @eladair, @jared, @meggan, @sofia_alfonso, @thelocker

**ihansel** 1:54 PM

Hi [@channel](#), hope you're all excited for the course and have made some progress on the pre-work! I've made a slack-channel just for the pre-work for the course. If you've got any questions or are having any difficulty getting through it feel free to message in here or pm me. ([edited](#))

**ihansel** 1:54 PM

uploaded a file



Welcome to Data Science - DAT3.pdf
1MB PDF

**ihansel** 1:55 PM

And the good news - all of you have completed part of the pre-work just by being on slack 😊