

# **DATA SCIENCE**

## **11 WEEK PART TIME COURSE**

**Week 1 – Course Overview & Getting Started**  
**Monday 21 March 2016**

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

# MATT GIBSON - TA

Data scientist at Rocketboots working with computer vision engineers on CCTV and security products. Previously did analytics on consumer, social and political data for small and medium enterprise. Fascinated by all kinds of datasets!





# 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?

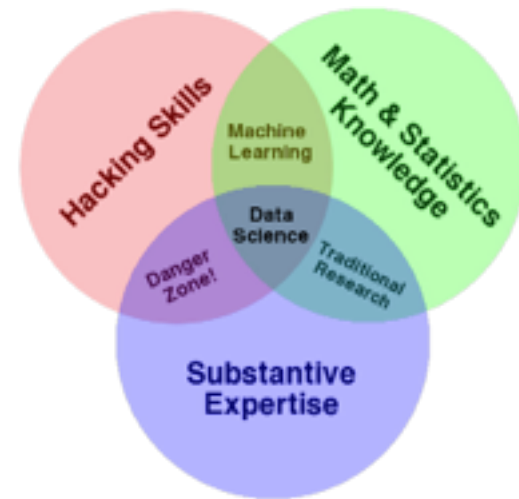
- Embrace Diversity
- Seek an Optimal Pace
- Communicate Early and Often
- Success is not a grade, it's an application

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



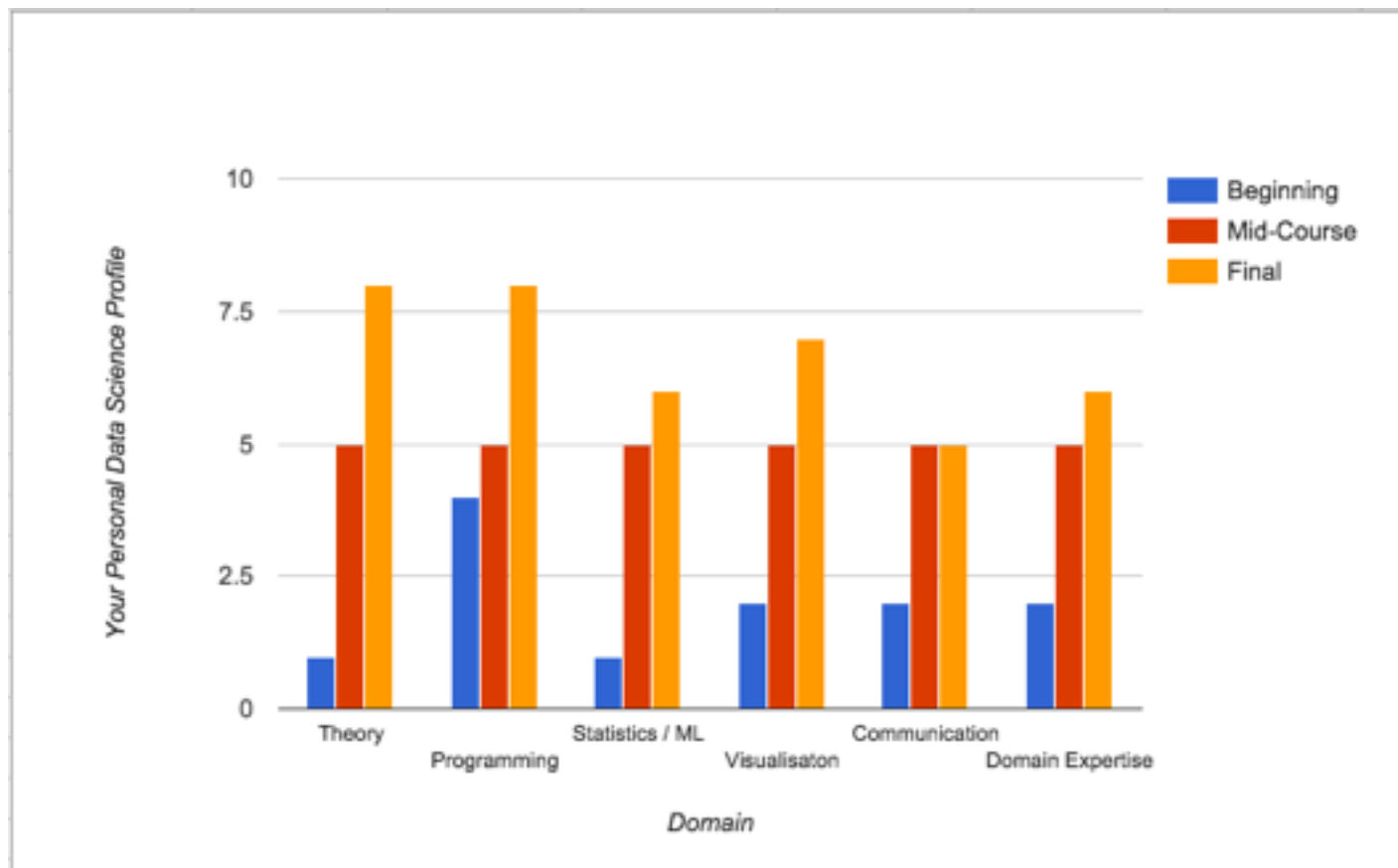
- Multidisciplinary Investigations
- Models and Methods for Data
- Computing with Data
- Pedagogy
- Tool Evaluation
- Theory

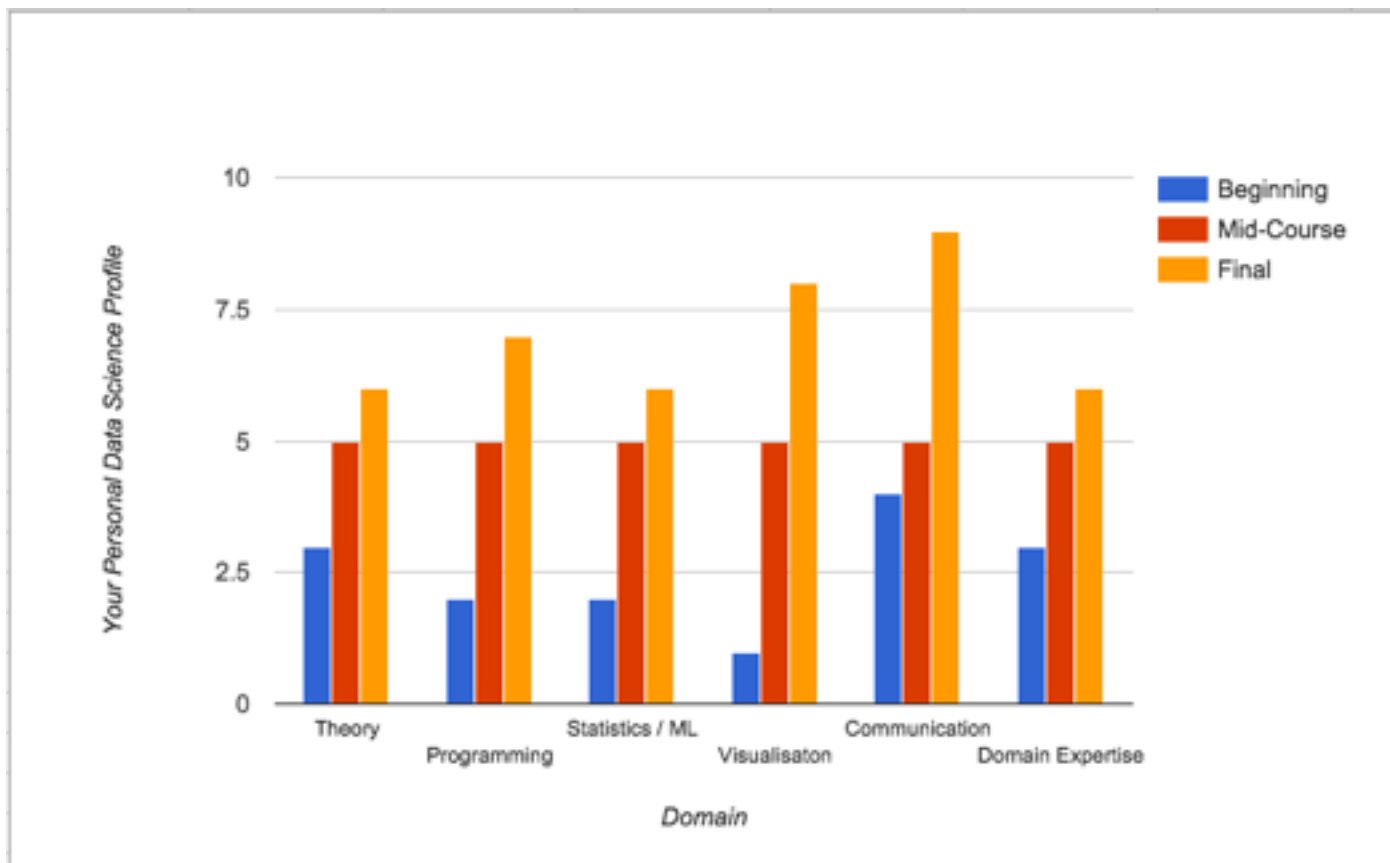
Data Science: An Action Plan for Expanding the Technical  
Areas of the Field of Statistics  
William S. Cleveland

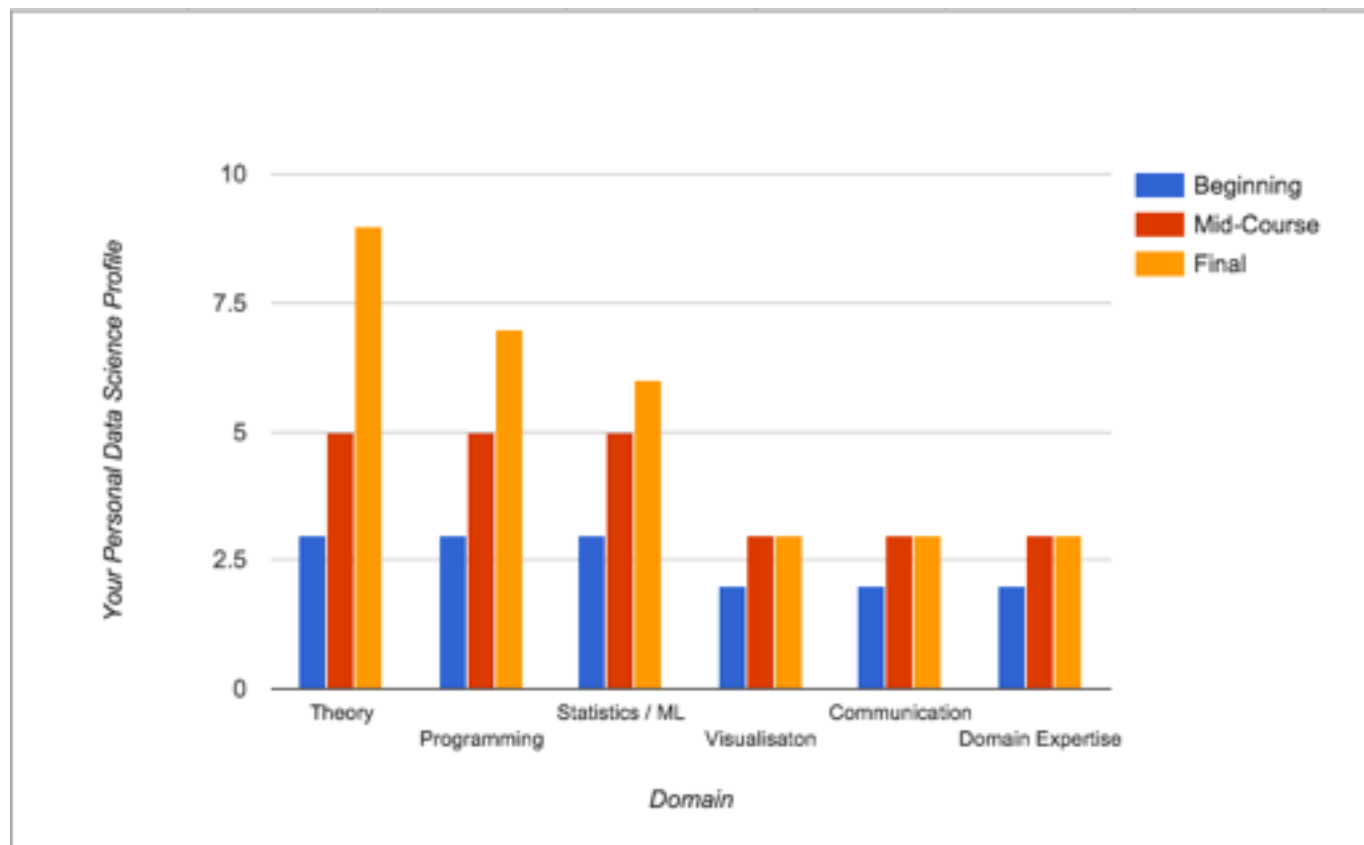


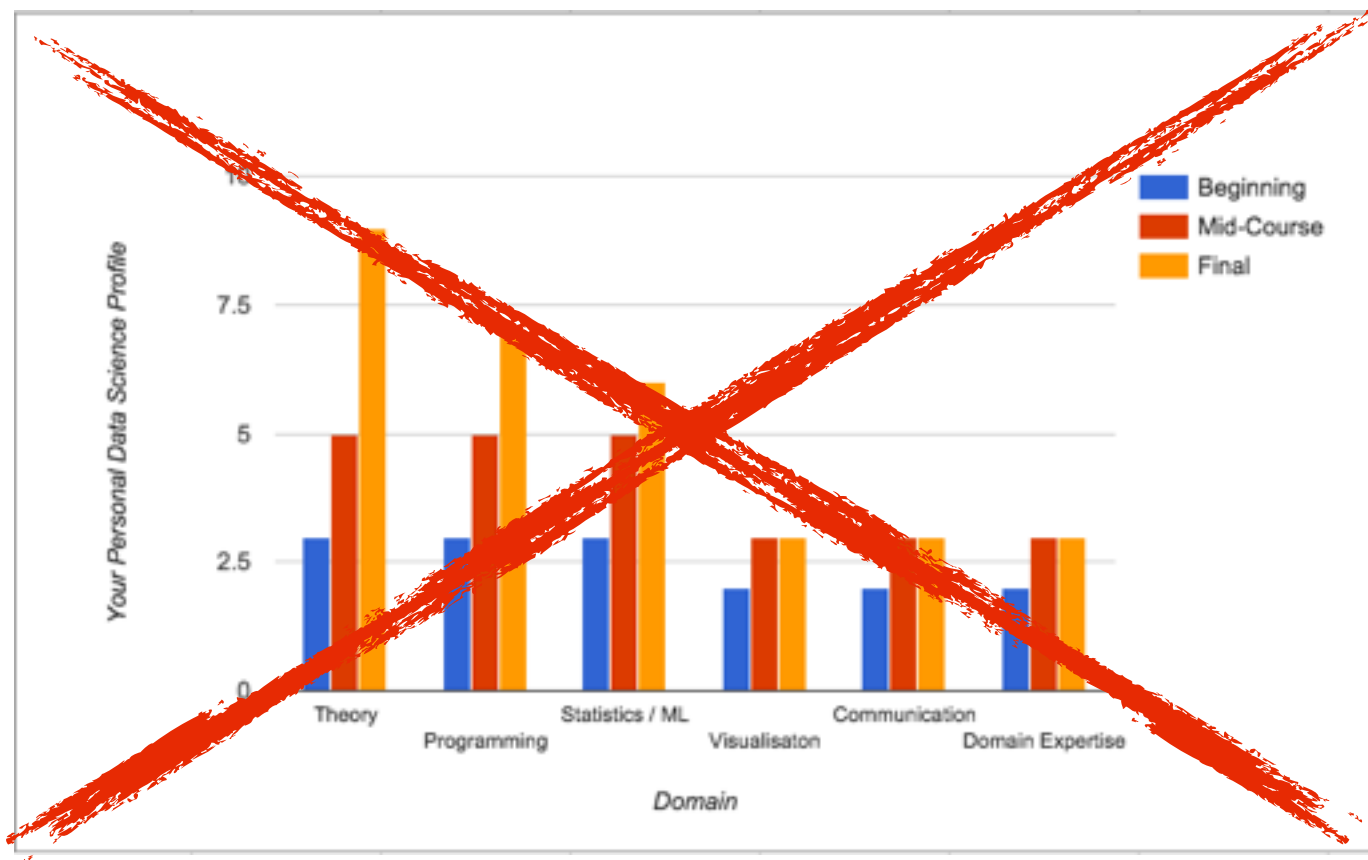
Drew Conway's  
Data Science Venn Diagram











## 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**



## #general

This is the very beginning of the [#general](#) channel, which was created by [mikaela](#) on December 1st, 2015. Purpose: *This channel is for team-wide communication and announcements. All team members are in this channel.* (edit)

+ Add an app or custom integration & Send [this link](#) to your team to invite them

December 1st, 2015

**mikaela** 2:50 PM

joined #general. Also, @meggan joined, @flavinha joined, @olexmrv joined, @austline joined, @jeremy joined, @anushi joined, @dominic.tabeta joined, @rvijaysubs joined, @richardw joined, @otsarvos joined, @ishaaaaan joined, @ahmed\_saad joined, @claudia joined, @ihansel joined.

March 15th

**ihansel** 9:47 PM

Welcome @everyone to the Sydney Data Science part time course! We're less than a week from starting now and I hope you're making it through the pre-work. If you have any questions feel free to ask them in the prework channel. Looking forward to getting started next week 🙌

March 18th

**nakatas** 7:08 PM

joined #general

Yesterday

**ihansel** 6:30 PM

Hi @everyone, only a few days left now until the start of the course! 🙌 If you have any questions with the pre-work make sure you let me know. Otherwise, looking forward to seeing everyone on Monday.

Today

