



My Journey using Programming Languages

From university to a full-time programming role.

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Drouville, *In the fish tank*

Drouville is a patient, graphic designer and artist from Argentina who has survived multiple myeloma and a relapse.

About me

- Graduated from the University of Reading in July 2020 with a BSc Mathematics.
- Completed a 13 month placement at Amgen as an Observational Research programmer using SAS.
- Joined Janssen in July 2020 as a Statistical Programmer Analyst in the Oncology therapeutic area.



Agenda

- 1 Programming at University**

- 2 Programming during my Placement Year**

- 3 Final Year of university**

- 4 My First Year in my Programming Role**

- 5 Conclusions and What's next?**

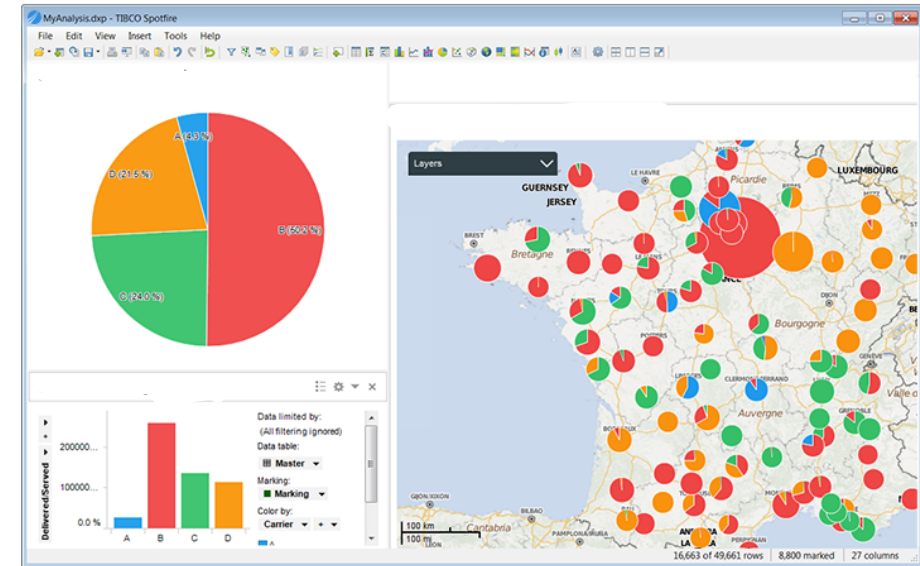
Programming at University



SAS – a complicated calculator?

Programming during my Placement year

	A	B	C	D	E	F	G	H	I	J	K
1	USUBJID	TRTA	TRTAN	PARAM	PARAMN	PARAMCD	PARCAT1	AVISIT	AVISITN	AVAL	AVALCAT1
2	001-001	Drug Treatment 1	1	Hemoglobin (g/dL)	1	HGB	HEMATOLOGY	CYCLE 1 DAY 1	101	11.4	LOW
3	001-001	Drug Treatment 1	1	Hemoglobin (g/dL)	1	HGB	HEMATOLOGY	CYCLE 1 DAY 14	114	11.2	LOW
4	001-001	Drug Treatment 1	1	Hemoglobin (g/dL)	1	HGB	HEMATOLOGY	CYCLE 1 DAY 28	128	11.3	LOW
5	001-002	Drug Treatment 1	1	Hemoglobin (g/dL)	1	HGB	HEMATOLOGY	CYCLE 1 DAY 1	101	12.7	LOW
6	001-002	Drug Treatment 1	1	Hemoglobin (g/dL)	1	HGB	HEMATOLOGY	CYCLE 1 DAY 14	114	12.4	LOW
7	001-002	Drug Treatment 1	1	Hemoglobin (g/dL)	1	HGB	HEMATOLOGY	CYCLE 1 DAY 28	128	13.1	NORMAL
8	001-003	Drug Treatment 1	1	Hemoglobin (g/dL)	1	HGB	HEMATOLOGY	CYCLE 1 DAY 1	101	12.5	LOW
9	001-003	Drug Treatment 1	1	Hemoglobin (g/dL)	1	HGB	HEMATOLOGY	CYCLE 1 DAY 14	114	12.4	LOW
10	001-003	Drug Treatment 1	1	Hemoglobin (g/dL)	1	HGB	HEMATOLOGY	CYCLE 1 DAY 28	128	13.1	NORMAL
11	001-004	Drug Treatment 1	1	Hemoglobin (g/dL)	1	HGB	HEMATOLOGY	CYCLE 1 DAY 1	101	13.5	NORMAL
12	001-004	Drug Treatment 1	1	Hemoglobin (g/dL)	1	HGB	HEMATOLOGY	CYCLE 1 DAY 14	114	13.1	NORMAL
13	001-004	Drug Treatment 1	1	Hemoglobin (g/dL)	1	HGB	HEMATOLOGY	CYCLE 1 DAY 28	128	12.6	LOW
14	001-006	Drug Treatment 2	2	Hemoglobin (g/dL)	1	HGB	HEMATOLOGY	CYCLE 1 DAY 1	101	12.4	LOW
15	001-006	Drug Treatment 2	2	Hemoglobin (g/dL)	1	HGB	HEMATOLOGY	CYCLE 1 DAY 14	114	11.3	LOW
16	001-006	Drug Treatment 2	2	Hemoglobin (g/dL)	1	HGB	HEMATOLOGY	CYCLE 1 DAY 28	128	13.2	NORMAL
17	001-007	Drug Treatment 2	2	Hemoglobin (g/dL)	1	HGB	HEMATOLOGY	CYCLE 1 DAY 1	101	12.5	LOW
18	001-007	Drug Treatment 2	2	Hemoglobin (g/dL)	1	HGB	HEMATOLOGY	CYCLE 1 DAY 14	114	12.3	LOW
19	001-007	Drug Treatment 2	2	Hemoglobin (g/dL)	1	HGB	HEMATOLOGY	CYCLE 1 DAY 28	128	11.6	LOW
20	001-008	Drug Treatment 2	2	Hemoglobin (g/dL)	1	HGB	HEMATOLOGY	CYCLE 1 DAY 1	101	11.2	LOW
21	001-008	Drug Treatment 2	2	Hemoglobin (g/dL)	1	HGB	HEMATOLOGY	CYCLE 1 DAY 14	114	13.1	NORMAL
22	001-008	Drug Treatment 2	2	Hemoglobin (g/dL)	1	HGB	HEMATOLOGY	CYCLE 1 DAY 28	128	13.2	NORMAL
23	001-009	Drug Treatment 2	2	Hemoglobin (g/dL)	1	HGB	HEMATOLOGY	CYCLE 1 DAY 1	101	12	LOW
24	001-009	Drug Treatment 2	2	Hemoglobin (g/dL)	1	HGB	HEMATOLOGY	CYCLE 1 DAY 14	114	12.6	LOW
25	001-009	Drug Treatment 2	2	Hemoglobin (g/dL)	1	HGB	HEMATOLOGY	CYCLE 1 DAY 28	128	13.6	NORMAL



- Hands on learning through projects with increasing complexity.
- The step up in skill level from university was high.
- Learned how to make my code more efficient and more advanced techniques (such as PROC SQL) from more senior programmers.

Final Year of University

- My placement experience greatly improved my confidence with programming.
- Involved a lot of independent learning of R. This increased my understanding of R but it was a challenge.
- Used MATLAB for my final year project.



My First Year in my Programming Role

- SAS e-learning
- Using old study data/sandbox area
- Increasing complexity of projects
- R training and table QC tasks
- Easy to get back into R!



Conclusions

- Programming was taught to me as a resource to aid understanding of core content at university.
- Now I have the skills to be creative in my code and I love problem solving using programming.

My university course didn't prepare me for using programming languages in a professional role, but my placement experience did.

What's next?



Did you have a similar experience learning programming languages?
Or did was your experience completely different to mine?

What do you love about your programming role?

I would love to know!