Data, Tech, & AI

Transitioning from Academia to Tech

I want to capture the following senses step by step:

* I started acquiring my knowledge and skills on data handling through computer programming during my PhD.
* I mostly used R for data analysis and statistical modeling of behavioral data.
* Learned Python and automation during my Post-doc, thanks to the supportive learning environment in Venki Murthy’s lab.
* Learned data collaboration, environment and version control.
* Gradually learned applications of computer vision and AI, and gradually dived into the details of the algorithms.
* Next learned how to scale up AI applications.
* Created and taught a course “Computational Ethology” heavily relying on Computer vision, AI, data analysis for 3 years. Along with polishing my tech skills, learned team management.
* Learned more on how websites work, data architectures for websites, and big data.
* Wanted to learn more on the data lifecycle, gradually learned data engineering.
* Learned Generative AI.

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\*\*Starting Off:\*\* My first brush with programming came around 2009-10, when I started wrangling and analyzing the data I collected for my PhD research. By the end of my PhD, I acquired quite a handsome set of skills required for data scientist roles in the industry.

\*\*Diving Deeper:\*\* But I decided to continue my research on behavior science and joined Venki Murthy’s lab at Harvard for my postdoc in 2018. It quickly became clear that mastering Python and automation was essential to streamline my workflows and scope of my research. Thanks to the supportive learning environment at Venki’s lab, this period was pivotal as I honed my skills in data collaboration, environment management, and version control, which are crucial for ensuring reproducibility and efficiency in research. In a short time, I started venturing into the realms of computer vision and artificial intelligence, fascinated by their potential to transform conventional research methodologies.

\*\*Teaching to Master It:\*\* Drawing inspiration from Richard Feynman, once I felt confident in my grasp of computer vision and AI, I decided to deepen my understanding through teaching. In 2020, I developed and began teaching a course titled "Computational Ethology." Teaching this course proved to be a dual learning journey—it not only refined my technical skills but also enhanced my capabilities in team management and educational delivery.

\*\*Moving Further:\*\* Curious about how the internet stitches together data and interfaces, I started learning about website data architectures, then progressed to big data, and gradually to data engineering. Each step was like a new door opening, broadening my understanding of the vast potential of data.

\*\*Generative AI – The Frontier:\*\* Since early 2023, I’ve been immersed in the intriguing world of Generative AI. This thrilling field is ripe with potential, poised to revolutionize our interactions with technology and how we harness its capabilities.

From my PhD days to now, every step has fueled my desire to harness technology not just as a tool, but as a cornerstone for building a smarter, better-connected world. As we continue to expand our horizons, let's commit to forging pathways that promise a better world for all. Here's to the relentless pursuit of knowledge, innovation, and meaningful impact!

I thought of the following sentence. Get the sense and give a sentence with it. You can also suggest some alternative opening line for this section.

* One of the most essential knowledge and skills to conduct any scientific research is data handling – planning, collection, preparation, analysis, management.