How did you discover your intellectual and academic interests, and how will you explore them at the University of Pennsylvania? Please respond considering the specific undergraduate school you have selected. (300-450 words)

It is terrifying for a thirteen-year-old to hear that her father has a life-threatening condition. When my father was first diagnosed with a spinal disc herniation, I channeled my fears and worries, dedicating my weekends to research about treatments. Reading about neuroanatomy and the diagnosis itself, it boggled me how easily such a condition could occur. The usage of non-invasive surgeries such as PLED showed me how sensitive our nervous system is, dawning on me the extent to which it governs our lives, something which drew me in to explore further.

The more I read, the more I got interested in the workings of our neurological system. What ultimately became my nicotine equivalent was when I came across cognitive neuroscience. The subjects of thought, memory and decision make me think. Could the human thought, the most capricious part of a human being, be bound by the movement of specific ions just as in muscle contraction? I would find the answers to these questions by studying Neurobiology of Learning and Memory, alongside the knowledge from Cognitive Neuroscience. Fascinated by my struggle with sleep paralysis, Human Chronobiology and Sleep would allow me to understand the human state of sleep.

Through attending a STEM symposium, discussing with not only scientists but also economists and engineers on treatments for heatstroke, we ultimately developed a wearable technology in place of consumables. Through that, I learned that to advance in medicine, it is not enough to master the science behind medicine, but also to understand the technology that allows it to advance. At Penn, I wish to further connect the world of neuroscience and technology in the Computational Neuroscience Lab. In addition, the Data Science Minor would give me the knowledge on data analysis for the development of future treatment designs, to treat conditions just like my father’s.

Furthermore, Penn’s Biological Basis of Behaviour (BBB) program would enable me to contribute to the medical society at an early stage through the independent research opportunity offered by the program. Fascinated with our ability to store memory, I hope to collaborate with the likes of Dr Nicole Rust and her work in the neural basis of visual memory. Taking part in the BBB Summer Research Internships would allow me to conduct research in state-of-the-art laboratories, also acting as a taster for my future career path: to be a part of breakthroughs in the study of neuroscience through professorship. I see taking down challenges as a way of enhancing neuroplasticity, of which I will be able to do through the BBB Student Research Symposium, giving me the opportunity to consult with remarkable neuroscientists with hopes of one day being in their shoes.

Highlighting student research, Penn’s cross-disciplinary and flexible curriculum will surely give me the support as I go on the journey to discover the answers to the mysteries of the brain.

Hi Valencia!

I think you’ve answered this prompt well.

I like how you’re clearly knowledgeable about the subject you want to take. So many of these terms just go whoosh! straight over my head. I also like that you’ve clearly demonstrated that you’ve done the research on the program offered at UPenn.

I think there are some parts that can be more detailed (please take a look at the comments) that will help you be more memorable.

All in all, good job and all the best! ☺

Fedora and Paul