

Personal Statement Samples

Sample 1

As a young child, I was obsessed with flying. I spent hours watching birds fly, noting how the angle of their wings affected the trajectory of their flight. I would then waste tons of fresh printer paper, much to the dismay of my parents, to test out various wing types by constructing paper airplanes.

One day, this obsession reached its fever pitch.

I decided to fly.

I built a plane out of a wooden clothes rack and blankets, with trash bags as precautionary parachutes. As you can imagine, the maiden flight didn't go so well. After being in the air for a solid second, the world came crashing around me as I slammed onto the bed, sending shards of wood flying everywhere.

Yet, even as a five-year-old, my first thoughts weren't about the bleeding scratches that covered my body. Why didn't the wings function like a bird's wings? Why did hitting something soft break my frame? Why hadn't the parachutes deployed correctly? Above all, why didn't I fly?

As I grew older, my intrinsic drive to discover why stimulated a desire to solve problems, allowing my singular passion of flying to evolve into a deep-seated love of engineering.

I began to challenge myself academically, taking the hardest STEM classes offered. Not only did this allow me to complete all possible science and math courses by the end of my junior year, but it also surrounded me with the smartest kids of the grades above me, allowing me access to the advanced research they were working on. As such, I developed an innate understanding of topics such as protein function in the brain and differential equation modeling early in high school, helping me develop a strong science and math foundation to supplement my passion for engineering.

I also elected to participate in my school's engineering pathway. As a team leader, I was able to develop my leadership skills as I identified and utilized each member's strength to produce the best product. I sought to make design collaborative, not limited to the ideas of one person. In major group projects, such as building a hovercraft, I served as both president and devil's advocate, constantly questioning if each design decision was the best option, ultimately resulting in a more efficient model that performed significantly better than our initial prototype.

Most of all, I sought to solve problems that impact the real world. Inspired by the water crisis in India, I developed a water purification system that combines carbon nanotube filters with shock electro dialysis to both desalinate and purify water more efficiently and cost-effectively than conventional plants. The following year, I ventured into disease detection, designing a piezoresistive microcantilever that detected the concentration of beta-amyloid protein to medically

diagnose a patient with Alzheimer's disease, a use for cantilevers that hadn't yet been discovered. The project received 1st Honors at the Georgia Science Fair.

Working on these two projects, I saw the raw power of engineering – an abstract idea gradually becoming reality. I was spending most of my days understanding the why behind things, while also discovering solutions to prevalent issues. In a world that increasingly prioritizes a singular solution, I am captivated by engineering's ability to continuously offer better answers to each problem.

Thirteen years have passed since that maiden flight, and I have yet to crack physical human flight. My five-year-old self would have seen this as a colossal failure. But the intense curiosity that I found in myself that day is still with me. It has continued to push me, forcing me to challenge myself to tackle ever more complex problems, engrossed by the promise and applicability of engineering.

I may never achieve human flight. However, now I see what once seemed like a crash landing as a runway, the platform off of which my love of engineering first took flight.

Sample 2

Since childhood, I have been an obsessive builder and problem solver. When I was 6, I spent two months digging a hole in my backyard, ruining the grass lawn, determined to make a giant koi pond after watching a show on HGTV. After watching Castaway when I was 7, I started a fire in my backyard--to my mother's horror--using bark and kindling like Tom Hanks did. I neglected chores and spent nights locked in my room drawing pictures and diagrams or learning rubik's cube algorithms while my mother yelled at me through the door to go to sleep. I've always been compulsive about the things I set my mind to. The satisfaction of solving problems and executing my visions is all-consuming.

But my obsessive personality has helped me solve other problems, too.

When I was 8, I taught myself how to pick locks. I always dreamed of how cool it must have been inside my brother's locked bedroom. So I didn't eat at school for two weeks and saved up enough lunch money to buy a lockpicking set from Home Depot. After I wiggled the tension wrench into the keyhole and twisted it counterclockwise, I began manipulating the tumblers in the keyhole with the pick until I heard the satisfying click of the lock and entered the room. Devouring his stash of Lemonheads was awesome, but not as gratifying as finally getting inside his room.

As the projects I tackled got bigger, I had to be more resourceful. One day in history class after reading about early American inventions, I decided to learn how to use a Spinning Jenny. When my parents unsurprisingly refused to waste \$500 on an 18th century spinning wheel, I got to work visiting DIY websites to construct my own by disassembling my bike and removing the inner tube from the wheel, gathering string and nails, and cutting scrap wood. For weeks, I brushed my two cats everyday until I had gathered enough fur. I washed and soaked it, carded it with paddle brushes to align the fibers, and then spun it into yarn, which I then used to crochet a clutch purse for my grandmother on mother's day. She still uses it to this day.

In high school, my obsessive nature found a new outlet in art. Being a perfectionist, I often tore up my work in frustration at the slightest hint of imperfection. As a result, I was slowly falling behind in my art class, so I had to seek out alternate solutions to actualize the ideas I had in my head. Oftentimes that meant using mixed media or experimenting with unconventional materials like newspaper or cardboard. Eventually I went on to win several awards, showcased my art in numerous galleries and magazines, and became President of National Art Honors Society. Taking four years of art hasn't just taught me to be creative, it's taught me that there are multiple solutions to a problem.

After high school I began to work on more difficult projects and I channeled my creativity into a different form of art - programming. I'm currently working on an individual project at the Schepens Institute at Harvard University. I'm writing a program in Matlab that can measure visual acuity and determine what prescription glasses someone would need. I ultimately plan to turn this into a smartphone app to be released to the general public.

The fact is that computer coding is in many ways similar to the talents and hobbies I enjoyed as a child—they all require finding creative ways to solve problems. While my motivation to solve these problems might have been a childlike sense of satisfaction in creating new things, I have developed a new and profound sense of purpose and desire to put my problem solving skills to better our world.