In 2006, Billy Almon was a volunteer in the aftermath of Hurricane Katrina. Fifteen years later, he shares the deep impression left on him, as a black man, by the hurricane’s destruction of communities that were majority African American. Participating in the relief effort inspired Almon to seek answers to the question that Hurricane Katrina forced many to ask: How do we prevent another natural disaster from causing such severe damage?

While completing an architectural degree at Howard University in 2009, Almon continued to seek the answers to his question. In his search, he stumbled upon Biomimicry. He decided to pose a question to Biomimics: What function in nature can prevent the destructive forces of hurricanes?

The reply was simple — a tree. The unique root systems of Red Mangrove trees prevent severe flooding and erosion. The Red Mangrove led Almon to design a building that would function like a mangrove tree, to prevent flooding. Although Almon’s building was never actually constructed, imagine if new coastal infrastructure was designed with Almon’s methods in mind. Perhaps the world would experience far less flooding.

Long before 2009, Almon remembers developing a love and respect for nature from his mother and grandmother. His mother’s life was decorated with plants and animal prints. His grandmother’s home in Georgia was where he discovered the wonder, and pain, of poison oak. However, his discovery of the Red Mangrove was a pivotal point in his career as a Biomimic. When he later decided to pursue his Masters in Biomimicry at Arizona State University in 2015, Almon uncovered even more of the deep connections that make nature an incredible design tool.

He laughs, as he recalls that the most difficult part of studying Biomimicry was dealing with the confusing names for things in nature with which most people are already familiar, but just can’t recognize the scientific name. Now that Almon is an expert, he reads children’s books on different subjects to help him avoid scientific jargon when teaching. As the co-host of the Animal Planet show Little Giants, which highlights tiny creatures with incredible biological abilities, Almon is constantly teaching. It is easy to tell that Almon is skilled when it comes to communicating about science.

As an Astrobiofuturist, he is regularly explaining his field. He says that this discipline is like a Venn Diagram in which space, biology, and human experience design are overlapping fields. One example of Almon’s work as an Astrobiofuturist is his understanding of how the development of a camera technology designed for space travel impacts so much of life today. Today, this technology is found in smartphones everywhere. Almon remarks that without cameras in everyday life we wouldn’t have access to the same media. An example that is particularly important to Almon, is the role that smartphone cameras have played in the ongoing fight for social justice. For years now, civilians have used smartphones to capture instances of police brutality that were later used as evidence.

Almon says that the key to his success when it comes to designing these world-changing technologies is bravery in the face of curiosity. He says that aspiring biomimics must ask questions, more questions, and then even more questions after that. One must follow the trail of questions because the path may bring unimaginable solutions. The wonder of Biomimicry, according to Billy Almon, is that everything in nature is connected. When we seek answers to one question, an entire world, literally, becomes the solution.

“Apply your passion but also apply it to listening to make sure that you’re building those relationships that we all need to improve this planet holistically.”

Advice from Almon