

Holding a pair of chopsticks in her weathered hands, my great-grandmother Tai Tai places a plate of steamed bao before my delighted eyes. I am filled with pure bliss as I tear into the soft white buns, releasing the scent of savory chives into the air. My chubby legs dangle from the mahogany wood chair at the marbled countertop as I devour the heavenly snacks. Tai Tai and I had just come back from a trip to the local zoo--my first time there! My eight-year-old self stared wide-eyed for hours at the lions, tigers, llamas, and chickens. I was amazed; never before had I seen so many animals all in one place, and I could not stop asking Tai Tai about them--even when my mouth was full of bao.

But, as I would learn a few years later, Tai Tai took me on this trip because she had just been diagnosed with Alzheimer's Disease. She wanted us to spend more time bonding together, and she wanted to give me memories I would cherish even after hers had been taken. Unaware of this awful fate, I chatter on about my desire to explore far off lands, and to see elephants, giraffes, and kangaroos. Tai Tai smiles, washing the dishes, and I pretend the trickling of faucet water is a waterfall and the shiny soap bubbles are fairies playing.

"Tai Tai, you already washed those dishes," I giggle, not thinking much of it.

"Oh, silly me!" she exclaims, and joins me at the counter after drying her hands. We finish the plate of bao in no time, and head outdoors to frolic in the sunlight. This day could not be more perfect.

When my parents come back to pick me up, I tell them about all the zoo animals I saw, and about how many baos I ate. Finding it humorous at the time, I tell them Tai Tai washed the already-clean dishes. At once, my father's face clouded and drooped. And soon enough, I would realize why.

Three years later, Tai Tai found it increasingly difficult to do tasks on her own, and had moved in with us. Sometimes, she would wake us up in the middle of the night, thinking morning had come. Sometimes, she didn't recognize us and cried out for her husband. All I could do was hug her and tell her it was going to be okay. During this time, I helped my father install railings, shower handle bars, a stair lift, and a shower bench. I helped to make Tai Tai's meals, and made sure she was getting enough exercise and was staying hydrated. Though I was young, I was happy to do it; after all, she did the same for me. I also began to play the piano, and noticed how Tai Tai's eyes lit up when I practiced. She'd rock side to side, with the biggest smile glowing on her kind and gentle face, telling me what a great musician I was. A year later, I began volunteering to play at our local nursing home and brought Tai Tai along. Hearing my music brought peace and joy to the elderly, which warmed my heart. Some had moderately severe

Alzheimer's, and would suddenly sit upright as they listened to a piece that triggered a distant memory. Even if just for a second, I knew that I had brought them some comfort. Music is a powerful force; it can stir up memories and experiences that may have seemed to be lost. I know this is true for Tai Tai when I play her favorite piece, Beethoven's Moonlight Sonata, third movement.

Today, Tai Tai's condition is worsening rapidly. I don't know if she remembers any of the adventures we had together, but I detail them to her anyway. I tell her about the time we skipped down the street with the sun in our faces, with myself in my favorite dress, holding onto her hand, and her wearing a blue apron and an old straw hat. I tell her about the time we hunted for red crabs together and when we didn't find any, we went to a supermarket and bought some. Each day, I practice memory games with Tai Tai, hoping it will slow down the progression of Alzheimer's. I'm fearful of the day my family and I might all together disappear from her memory. However, I've come to focus more on the positives. I'm grateful that I have been able to spend so much time with Tai Tai. Taking care of her and telling her about my day has allowed me to become closer to her. I've learned to live in the moment and appreciate every second of it. Tai Tai watches my Zoom lectures with me, and I tell her about everything I learn at school each day. I also remember telling her of the day I would go to college, the day I would buy a house, and the day I would travel to China on a solo trip and try every street food I could find. But now, all I want to do is be in the present and cherish it. Tai Tai may not be here anymore when I reach those milestones. So I am always here for Tai Tai in the moment, telling her stories, making her steamed baos like she used to make for me, and taking her outside to look at the fresh green trees under the blue sky or at the bright stars under a blanket of darkness. I know that many young adults my age haven't seen their grandparents in months or even years. In the age of Zoom and the pandemic, I encourage them to video chat with their grandparents; this isolating time can be incredibly lonely and depressing for the elderly, and it's important to help them stay connected to their family and brighten the last decades of their lives. Oftentimes, we neglect the elderly until it's too late, and forget about the care they provided us in their youth. And eventually, when my generation ages, it may very well happen to us too. However, increasing awareness of this issue can help to solve it.

Next year in college, I am pursuing biochemistry and computer science. I want to fully understand the biological processes that can cause Alzheimer's and dementia, and I plan to conduct research on ways to stop the progression of these diseases, whether it be through removing abnormal protein deposits through a new drug or finding a prevention for those genetically predisposed to the diseases. The failure rate for Alzheimer's treatment drugs is high. But I am not deterred. As I work, I know Tai Tai will be in my thoughts, motivating me. In the lab, I plan to team up with other research students, and appeal for government or public support. I will share my story, and help to share the stories of others whose loved ones have also been impacted by Alzheimer's or dementia. I will also seek to help those with Alzheimer's through programming. I am currently designing an app to aid families who have a loved one with this

disease, and would like to launch this app within the next one to two years. It includes games involving pattern memory, matching friends and family members with their names, simple puzzles, and voice memos that patients can create to recall what they did that day. It will also include a scheduling system that can be personalized, as well as various methods to strengthen and stimulate the brain, which I am still testing out. I have already played many of these games with Tai Tai, who has been delighted with them.

My experience working as a coding instructor for kids has helped me tremendously in designing my app. But it has also provided me with connections, giving me a platform to educate. I plan to make frequent visits to elementary, middle, and high schools across the country to share my story, as well as my research projects and app. I hope that I will be able to inspire empathy and help others truly understand what Alzheimer's is, and how it affects the lives of the elderly and their families. I hope that somewhere out there, a child who listens to my presentations will think upon their elderly grandparent and remember to appreciate and value every moment with them, because life is short, and we never know how much time our loved ones will have with us.

Tai Tai has lost her ability to walk. It's difficult not to weep when I think about how cruel and unjust Alzheimer's has been to her, but I know that even when this heinous disease takes Tai Tai's ability to breathe, eat, and speak, our memories together will be a part of me forever, and her story will live on in the minds and hearts of so many others.