***UC essay prompt 3***

*What would you say is your greatest talent or skill? How have you developed and demonstrated that talent over time? (350 words)*

Unlike other kids, I was never really exposed to many toys and manga. Instead of toys, I played with used home appliances, such as mixers, water pumps, and computers, trying to fix them. Instead of manga, I would read home appliance manual books and study each of their components. As I improved my “fix success rate,” I built a sense of accomplishment when my mom and her friends asked me to fix their appliances.

As I grew confident, I began challenging myself to “create” instead of just “fixing”: I built my own pedal-powered bicycle generator. It all started from my frustration due to recurring blackouts in my area during the pandemic, restricting my activities. I couldn’t charge my devices and power my wifi. So, I took my dad’s unused mountain bike, added a roller underneath the wheel, and connected them to a used car alternator with a fan belt. This enabled me to generate electricity by pedaling and used a 12V portable battery to store the electricity. Besides generating electricity, the modified bike helped me stay fit during the isolation; it was a productive, win-win pandemic pastime. Reminded of my neighbors who faced similar electrical issues, I was eager to help them spread my bike modification, thus, leading me to help build several affordable pedal-powered bicycle generators.

I enjoy the thrill of solving problems. I further my skill by taking on car-tuning. I started by helping my cousin develop his race car. The brakes, gearbox, suspension, and chassis are bespoke which requires a high level of engineering knowledge. Therefore, I started reading Carroll Smith’s “Engineering to Win,” which allowed me to help realize the first steps of designing race cars of the future.

What started out as missing out on toys and manga, fixing appliances to impress mom’s friends, and repurposing my dad’s mountain bike during the pandemic, I have now gained the skills to work with bigger machines. This has led me to confirm my passion for machine design, which I plan to continue to further develop this skill within the UCs and as an engineer.