



Eric Wei
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Blending creative abilities in science and music

Eric Wei looked forward to undertaking his undergraduate degree at Duke University, following graduation from James W. Robinson Secondary School. He plans to study biomedical engineering, his passion since sophomore year, when he spent the summer researching spinal cord injuries as an intern at the National Graphene Research and Development Center. A second internship followed a year later, deepening his experience in neuroscience as part of an investigative team at George Washington University. At just 17, Eric got the position by contacting the principal investigator through email and asking for a spot on the research team. A report on their investigation of central nervous system development, co-authored by Eric, is under review prior to publication.

"I have been enamored with research in neuroscience ever since," Eric says of his early professional experiences. As he entered his second year of the Diploma Programme, Eric completed a third internship, this time a research intern in the chemistry department of the U.S. Naval Research Laboratory, where he contributed to the development of lateral flow immunoassays, which support disease detection from tuberculosis to malaria, and are sensitive to pregnancy detection as well. This work was especially satisfying to Eric, who understood that improved disease detection is particularly valuable in developing countries where expensive medical equipment is often not available. He was motivated by the idea of making affordable health care a reality to people who historically have not had access to high-tech diagnostic equipment.

As a DP student, Eric completed higher level chemistry and biology. "I took specific courses that would enable me to pursue my interest in science," he said. His extended essay also focused on a scientific topic.

Despite keen interest in his coursework, Eric worried that his passion for music, which rivals his love of the natural sciences, might suffer from neglect. His tastes run eclectic, from modern pop to classical to film soundtracks. Beyond listening to an array of musical styles, he also plays violin and piano and was a member of his school's orchestra.

Eric credits the Diploma Programme and his experience in the orchestra with teaching him to maintain a healthy balance between academics and relaxing activity. "The DP taught me to look at music as an escape from the constraints of the classroom—and a wonderful stress reliever," he explains. Time spent with the violin allowed Eric to take a break from academics. His musical talents were solid enough to enable him to work as a teaching assistant, supporting beginning and intermediate-level violin students throughout his middle and secondary years of school.

"Violin has become an integral part of my life," Eric says. He plans to continue playing violin at university. "To part with it at Duke is something I could not bear—I intend to join the school's symphonic orchestra," he says. Striking a balance between science and music, he adds, prevents him from 'burning out' on either.

Eric initially planned to attend a high school that did not offer the Diploma Programme. A little research, however, changed his mind: he wished for an educational pathway that would challenge him intellectually, yet allow him to pursue his two passions at highly engaged, deeper levels.

"The IB was going to be an infinitely better experience," he concluded. Prior to starting at Duke, Eric admits to "a strong inclination that the scientific knowledge, and more importantly the communication, writing, and speaking skills" that he honed in the DP would be assets to him at university. The DP, he believes, strengthened his abilities to understand and communicate his work—skills essential to his future career.

"The DP taught me ways of thinking," Eric says. And allowed him to understand his potential for leadership in science, and perhaps in music, too. For several years, Eric served as co-president of Operation RISE, an after-school club for primary students, where older students like Eric teach younger ones about science through experiments and fun activities—igniting interest in what might be a game-changer for youths looking for career pathways.

The DP allowed Eric to construct a personalized, rewarding educational experience, as he pursued his dual passions, developed leadership skills and balanced his time and natural gifts.