

Pushing for green initiatives



TRYING to reach a letterbox at the void deck of his Yishun flat when he was a child uncannily started Mr Max Xu (above) on a journey into the intriguing world of mechanical engineering. It was too high for the then 1.3m-tall Secondary 2 student to retrieve the family's mail, making him ponder if there was an ingenious way to solve the problem.

He put that thought to good use during a school science competition, entering a prototype that could solve his letterbox problem. Made of cardboard and tape, it was a simple pulley contraption that tilted a movable plate inside the letterbox towards him when it was opened. The idea was a winner.

His teachers were impressed and judged it the best in the competition. That first step in solving a problem inevitably led Mr Xu to pursue a degree in mechanical engineering at the National University of Singapore (NUS). Midway through, he was awarded the Building and Construction Authority (BCA) scholarship and eventually graduated with a Second Upper Honours degree in mechanical engineering.

"I like to understand concepts and apply them to solve problems. I guess that is what being an engineer means to me," says the 30-year-old, who is currently senior manager at BCA's Green Mark (Existing Buildings) Department under the Technology Development Group. "I also like to help the people around me when I can. It makes me really happy when they ask me for help and I am able to do so."

Interest in machines

Mr Xu, who graduated in 2010 with a specialisation in Aeronautical Engineering as well, says he opted for mechanical engineering because of his interest in machines and fluid mechanics.

His career at BCA began in the Universal Design Department before he moved to its Manpower and Strategic Policy team, and to the current Green Mark department. Mr Xu says: "For 15 months, I was also attached to Beca Carter, a building services consultant company that draws on its full range of specialist disciplines to take a project through from conception to implementation.

"My experience there gave me a micro-view of mechanical engineering and helped me understand better how small details contribute to the overall delivery of a sustainable built environment." Mr Xu's stint at Beca helped him understand the important role the regulator plays in ensuring that buildings comply with regulations, and in contributing to the quality of life for everyone.

He adds that it was NUS that gave him a good grounding to do his job. "I occasionally apply content knowledge from what I had learnt from my degree in my work," he says. "More frequently, it is the can-do attitude and fast, accurate analytical skills that I picked up from studying five to six modules per semester that help me quickly apply what I learnt." The BCA scholarship came midway through his studies and Mr Xu says it is attractive because of its mid-term option.

He adds: "I was already on track for my Second Upper Honours when I applied for the mid-term scholarship, which reimbursed me the tuition fees for all my previous years of studies as well as the full tuition, hostel and overseas summer exchange fees."

Greening the buildings

The scholarship paved the way for a seven-week stint as an exchange student at the Campus Querétaro of the Tecnológico de Monterrey in Mexico.

There, he studied the management of water resources, which gave him insights into managing water in an urban development. As part of the BCA Green Mark Department team, Mr Xu now assesses the sustainability and energy efficiency of existing buildings.

“I am part of the BCA team actively pushing for green initiatives towards the national target to green 80 per cent of buildings in Singapore by 2030,” says the engineer, who goes to the gym two to three times a week so that he can row better for the BCA dragon boat team.

“I am also helping to promote the green building movement in Singapore and the tropics by helping to organise the annual International Green Building Conference (IGBC) and Singapore Green Building Week (SGBW), which are attended by around 30,000 delegates from more than 50 countries.” Mr Xu encourages budding undergraduates to live and learn at a university residence for as long as they can. The life skills and friendships gained, he says, will last them a lifetime. “Enrol in a course that you love,” he advises.

“Undergraduate years are a good time to hone life skills and live independently, as you step closer to employment and entrepreneurship.”

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