

Obituary of Yuda Fan

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Yuda Fan, aged 25, has passed away on Nov 20, 2023, in Zürich Switzerland, due to a myocardial infarction. Yuda's life is short but interesting and inspiring, highlighting in his creative ideas in computational geometry, and his ceaseless efforts in charity campaigns. He is one of the most humble and humorous guy I had ever met. I would rather say it is himself who are writing this article, since all the efforts and intelligence contributing to this originates from him.

Yuda's talents did not show early, instead, he has been fighting against his life since childhood. At his age of two, due to the malnutrition, a serious gastroptosis almost costed his life. Unfortunately, just two years ago, before his joining in ETH Zürich, he was badly hurt in a car accident. Although the sequelae took away a lot of his energy and clarity, he remains so positive and confident, as if the life had never treated him harshly.

Yuda never considered himself a smart boy. As he commented, "in my first 12 years, I wanted to be a chess tournament player, the next 12 years, I tried to become an expert in computer science. But unfortunately, I succeed in neither of them." However, actually, he was certified as the first level national chess player in China (Elo rating 2350) before he turned up 12. After that, he spent a wonderful journey in competitive programming, including twice qualifications to the ICPC world finals. He got his bachelor's degree with honor at Shanghai Jiao Tong University in 2020, and then moved to ETH Zürich's direct doctorate program in 2021.

Yuda's research initially focused on robotic vision, and later shift to the computational geometry and other aspects in theoretical computer science. In this master thesis, he was working on the hidden points problem, which has been overlooked for years. I believe that he has already achieved some quite nice results in his project, as he told me that he felt like heading for the ETH medal. Nonetheless, the misfortune stopped by him again, and this time, took him away from us forever.

It was my luck to meet Yuda at Shibuya in 2019, during his attendance at an international conference in Tokyo, Japan. At that time, I was learning partial differential equation for my bachelor thesis and I am totally not interested

in it. I met Yuda at the bar beside the hotel, and immediately, we started to chat with each other after a few minutes. I complained about my situation, and Yuda suggest me to search for something brand new and interesting enough. He made a lot of examples to inspire me, and I still remembered two of them. One is the computational group theory, and he illustrated that how this theory could help us solve the Rubik's Cube. Another example is the geometry folding, and he showed that how to draw the trisector of any angle by origami. I was immediately amused by his words, "I believe you Japanese is better in this, as this is called origami, instead of zhezhi."

I really appreciated the first meeting with Yuda, since it reshaped my academic career. Although I do not work on any topics he suggested at that time, but he did save me from my lowest point. Since then we become friends with occasional discussions. Apart from academic, he also helped me learn speaking Mandarin and introduce every aspects about China to me. What is a pity is that since the pandemic and the corresponding travel ban, we do not have a chance to gather again. Therefore, our first meeting became also the last.

Apart from the academic life, Yuda also devotes himself to the charity. This is even more cherishable consider that Yuda also comes from a low-income family, and he also has not any earned income except for the scholarship. In Aug 2022, after listening to a talk, he made up his mind to donate at least tenth of his fortune and spend at least an hour per week doing free tutoring. Especially, he enjoying help senior high school students learning competitive programming, and his students are all across the world, from Switzerland to United States. As himself putted, he used to benefit from others' efforts, right now it is his turn to broadcast this enthusiasm for charity.

Yuda is one of the Evenks in China, which is originally a nomadic tribal in northeast Asia. He told me that his name means being open-minded and generous in Mongolian. Once he has told me, he thought to die with a lot of balance in bank account is a dishonor. Here, I could safely conclude that he lived up to his name, and also, spent a short but wonderful life.

At the end of our first meeting, he wrote down two sentences to encourage me, half Japanese and half Chinese. Today, I gave them back to Yuda, as I think they are the most appropriate demonstration for Yuda's life.

七転八起, 不撓不屈.
天眷不顧, 君勿自弃.
Fallen seven and rise eight,
Never think about surrender.
Even if density is not favorable,
Don't give up yourself.