

*Statement #1* What impact do you want to have on the world and why?

I want to make the world a more transparent and equitable place. Technology, and software in particular, has the potential to level the playing field and improve accessibility in many different areas. Software has already democratized everything from personal finance to healthcare. Yet, despite the vast opportunity that technology has created, it is not guaranteed that everyday people will benefit from new technologies like artificial intelligence. That is what I hope to work on in my life. I want to build tools that empower people and pave the path to a fairer tomorrow. I cannot think of a better way to use my technical and business skills than this. In my work, I want to start at the very beginning, thinking about new product ideas and bringing them to life through new companies. The moment of inception is uniquely decisive in influencing the direction of a new software idea. I am excited about the chance to work in an agile environment, where I can learn from my mistakes and move quickly. I do not expect to work in other peoples' startups for long: After gaining experience in the startup world and finding my particular passion, I want to start my own company, in order to make the best use of my skills and have the greatest impact.

*Statement #2* Describe your most meaningful experience(s) and why they matter to you.

While an undergrad, I led a project to launch a research satellite into low-Earth orbit. I took over the project in its fourth year, after spending a year working on the control system design. However, when I became leader, we had to reinvent the project from scratch. We had very limited technical plans for the design of the spacecraft. Our previous proposals to NASA had been rejected. We needed a completely different approach. Firstly, we had to adjust our aims: There was not much of a point to launching another earth camera or muon particle detector into orbit. So, we pivoted to study different spectra of radiation, and drew up more specific ideas for what the satellite systems would look like. We submitted a launch proposal to NASA that was ultimately successful: Our mission was selected to fly in low-Earth orbit. We also won funding from NASA to develop the satellite subsystems. These victories paved a way forward for the project, which had been facing termination. After serving as leader for a year, and turning the project around, I was asked to serve as the development director for the entire aerospace association. I have continued to advise on the CubeSat. Over the past year, our team has worked to construct the satellite. (The pandemic has delayed things.) Reviving and carrying this project forward to a launch grant was the most meaningful experience I have had at Yale. It was the coolest and most ambitious thing I have done.

*Product Challenge* What is a product that does not exist yet but should?

Internet services, such as food delivery and video streaming, are surprisingly fragmented and inefficient markets. I was surprised to notice that food delivery prices from a specific restaurant were meaningfully different on different websites. The service that offered the lowest costs differed depending on restaurant, geography, and the time of day. The price differences may seem small on the margin. However, in recent years, and particularly during the pandemic, people have become increasingly reliant on a wide variety of online services. The dollars in savings add up in a significant way. There needs to be an easy-to-use tool that allows consumers to find the best rate, accounting for promotions, variances in cost, and availability. An app or website along these lines could lead to better outcomes for shoppers, while improving the efficiency of the online marketplace at large. The savings benefit could be a significant attraction. Nevertheless, gaining traction and a user base will be a challenge. Other difficulties include gathering accurate real-time data and scaling the service. A price comparator tool such as the one outlined here might have a great place within an existing ecosystem. Further analysis will be needed to understand whether this idea would work.