Undergraduate Technology Innovation Fellows Program Application

**Please indicate your plans for the summer of 2023. If you have not yet finalized your plans, please let us know what you hope to do this summer. (500 words)**

Ideas

* This summer I will be working as a software development engineer at Amazon in Seattle.
  + Design, write and test real software while partnering with a select group of experienced software development engineers
  + Articulate technical challenges and solutions
  + Handle ambiguous or undefined challenges through abstract thinking
* I am going to be working on my startup during the summer too. We just onboarded our fifth engineer, which means that our MVP will soon be ready and rolled out. By the time the summer starts, we are launching the product together with our clients and partners, so there is going to be a need for stronger marketing efforts, and for functionality polishing. If development bandwidth is enough, I also have planned functionality for adding more services to our platform.
* Outside of work I have some personal goals for the summer:
  + Continue learning Mandarin
  + Go to the gym to continue recovering from surgery
  + Do independent study of machine learning, or potentially write a draft for a textbook on Quant Finance (STAT 170).
* I still have not receive news regarding my acceptance, but if it all goes well, I should be going to Taiwan to teach high school students about the basics of probability and statistics, and how they are interestingly used in places where we would typically not imagine.
  + I would be excited to present a lecture on the fascinating topic of probability and statistics and how they impact our daily lives. The lecture would begin by providing a brief overview of the foundational elements of probability theory, including key concepts such as independent events, conditional probability, and Bayes' theorem.
  + We would go over the importance of appropriate visualizations, and how they can help us make better sense of the data.
  + Then, we would delve into real-world applications of probability and statistics that many people encounter on a regular basis, but may not realize the underlying principles at work.
* I would also come back to Harvard two weeks before the start of the summer to receive the Class of 2027 that are going to be part of the First-year International Program.
  + A program for international students that introduce them to Harvard and helps them adjust to life in the United States. I will participate as a student leader, as one of the three FIP parents assigned per family of 10 students. I will also participate in the social committee, organizing the all the social events for the incoming students.

For the summer I have various plans that align with my different interests: software development, entrepreneurship, teaching, and leadership. At the beginning of the summer, I will work as a software development engineer at Amazon in Seattle. I have not yet been assigned an organization within the company, so I do not know what team I will join, but I am excited to design, code, and test real software while working with experienced engineers.

I also plan to work on my startup, Recyco, as we approach the launch of our MVP. By the start of summer, we will have already launched our recycling analytics platform together with our clients and partners, so we will aim to increase our marketing efforts and polish all the existing functionality. If the development bandwidth is enough, I would like to implement some of the upcoming products in the development roadmap, which includes a marketplace for post-consumer recycled materials, and a marketplace for recycling credits (similar to carbon credits, but for recyclable materials).

In addition to my work-related goals, I hope to accomplish some personal ones as well. I want to resume learning Mandarin and complete an independent study on machine learning. I will also continue strength training to recover from spinal fusion surgery. Finally, I would like to contribute to the writing of an introductory quantitative finance textbook designed to provide support for STAT 170 students.

I have applied to participate in two teaching programs during August after my internship concludes. The first one would involve traveling to Taiwan for two weeks to give lectures to high school students and organize exciting extracurricular activities for students to enjoy outside the classroom. My lectures will cover foundational elements of probability theory, including key concepts such as independent events, conditional probability, and Bayes’ theorem. I will also dive into practical applications of probability and statistics that we encounter daily, such as forecasting weather, predicting disease transmission, and targeting social media advertisements.

The second program would take place just before the opening of the fall semester. I would be part of the student leadership team of the First-Year International Program at Harvard, a one-week orientation program that welcomes international students from the Class of 2027, right before general orientation for all students. We introduce them to Harvard and we help them adjust to life in the United States. Also, as part of the social committee, I would be involved in organizing fun activities for the students to meet each other and connect.

Overall, I am committed to engaging in diverse experiences that align with my interests and goals. Specifically, I will concentrate on advancing my skills as a software engineer, expanding upon my startup venture, cultivating personal growth opportunities, sharing my knowledge and passion for statistics and probability with others, and taking on leadership roles to mentor new Harvard students.

**List up to 2 projects on which you are currently working, or have recently worked, that tried to solve a problem. Projects can be both academic and extracurricular in nature.**

1. **Recyco**
   1. **Brief Description of Project (500 characters)**
      1. Big consumer product companies want to increase the recycled plastic content in their products but lack the empty used packaging required for the recycling process, and their attempts to collect plastic packaging were failing. We built a software platform that allowed companies to manage their collection efforts digitally. This was paired with a consumer-facing application that made recycling easier by providing instructions, locations of stands, and even a home pick-up system.
   2. **Current Status (400 characters)**
      1. We are currently 2 co-founders and 5 engineers working on the project.
      2. We have a stable ARR of $450K with clients ranging from international consumer product companies, such as Unilever and Nestle, to local Argentinian companies, such as Molinos, the largest branded food products company in the country.
      3. We are set to launch our platform publicly in two months in 8 Argentinian cities.
   3. **Key accomplishments (400 characters)**
      1. Negotiating agreements between a national university, multiple local governments and private corporations for them to collaborate in the establishment of circular economy infrastructure.
      2. Developing the initial version of the platform without external funding.
      3. Providing employment opportunities to more than 5 people.
      4. Closing contracts worth $650K+ with multiple clients.
   4. **Significant challenges (400 characters)**
      1. Taking the company off the ground without an extensive personal network. We reached out to companies for months until we were able to talk to decision-makers that understood our vision and decided to adopt our product.
      2. Understanding the perspective of the different stakeholders, given that NGOs, government agencies, and private businesses, each have their own culture and goals.
   5. **Why was this project meaningful to you? (400 characters)**
      1. 8M pieces of plastic are thrown into our oceans every day. 91% of plastic is not recycled. This is not only a climate problem, but also a human one. Recycling workers are more than twice as likely to become injured than the average worker.
      2. Both climate and social issues are ones I am very concerned about, and wish to help tackle. Recyco is my attempt to help, and that is why it is meaningful to me.
   6. **Supplemental information if applicable (links to websites or articles etc.) (400 characters remaining)**
      1. <https://recyco.in> (Old website, new one will be released once we leave stealth in about a month or two)
      2. <https://docs.google.com/presentation/d/1o36iAb4XWFzY4C1ud1s7ov9R9sDiaQUgLRo99maM9HU/edit?usp=sharing> (Company presentation for Princeton’s Business Today Impact Challenge)
      3. <https://docs.google.com/presentation/d/1VqZH49tcQ_3CpCnMYLvp76pf-UQjZffP3ff1QZHYzUU/edit?usp=sharing> (Internal functionality presentation. It is in Spanish but can provide a translated version upon request.)
2. **Reindi**
   1. **Brief Description of Project (500 characters)**
      1. Reindi is a web platform that allows parents of children with disabilities to obtain reimbursement for their medical expenses online for free. In Argentina, the current method for obtaining reimbursements involves gathering physical documentation from the kid’s primary physician and every single provider (transport, education, etc.) and taking it to the insurer’s office. This is prohibitive to low-income families who cannot afford to do it and whose children are left without care.
   2. **Current Status (400 characters)**
      1. The MVP of the platform is ready, with the ability for parents to invite providers (in and out of network) to join, and request the required documentation and signatures from them.
      2. Currently in private beta and being used by the founder and a couple of other families. There is a list of doctors and a small insurance firm that are waiting for the beta to end to adopt the software.
   3. **Key accomplishments (400 characters)**
      1. We have sat face-to-face with the C-suite of Argentina’s 3 biggest insurance companies and discussed the use of web technologies to improve access to insurance for people with disabilities.
      2. Designing an accessible software product that was easy to use by parents, regardless of their background or their insurer.
   4. **Significant challenges (400 characters)**
      1. The biggest challenges stemmed from the fact that insurance companies had no incentive to make the system smoother for the families since they would lose money by reimbursing.
      2. This meant we had to redesign the original product so that it would not require the buy-in of insurance organizations and could be used by parents, regardless of who their insurer was.
   5. **Why was this project meaningful to you? (400 characters)**
      1. Reindi was the first project that taught me the value of technology, not only to solve problems, but to connect with people on a deeper level, and to understand what is most important in their lives. I realized there is nothing as fulfilling as building something from scratch, and watching how it positively impacts their lives.
   6. **Supplemental information if applicable (links to websites or articles etc.) (400 characters remaining)**
      1. I can provide the contact information of José Aberg Cobo, founder of Reindi, who can give you more information about the project and my involvement. He wrote my recommendation letter for college transfer and would gladly provide one for the Tech Fellows program.

**Please upload a Statement of Purpose addressing the following questions:**

* **Why are you applying to the Undergraduate Technology Innovation Fellowship program**
* **What do you hope to take away from this program?**
* **How can you contribute to the learning of your peers?**

**Please provide specific examples from your educational or professional experience. (Maximum: 500 words)**

Ideas:

* Why are you applying to the Undergraduate Technology Innovation Fellowship program?
  + I resonate with **prototype** of who the program is pointed towards. Two years ago my 3 best friends and I made a pact: come to the U.S., learn as much as we can, connect with people from all over, develop ourselves professionally, and then return to Argentina to help our country attain sustainable growth.
  + My first step was to pursue technical training at Rice University. I then transferred to Harvard in search of an atmosphere where students were both passionate about technological innovation and who were anxious to materialize tier innovations through startups.
  + Throughout high school, my gap year, and my time in college, I have worked on a series of startups that all aim to solve issues affecting society. To me, it is equally as important that a venture can sustain itself financially through time as its ability to generate a positive effect in society.
  + **Talk about previous startups here.**
  + Next summer I would like to work in a technology company focused on AI development, such as OpenAI or C3, to learn more about the ways we can apply the new and exciting models coming out every day to traditionally unappealing that significantly impact our economy and standards of living, such as agriculture, construction, and healthcare.
  + I resonate to the stereotype? To which the program is offered
    - Talk about Reindi, Rutd, Glos, Recyco and how they have tackled social issues and have gone beyond just looking for an opportunity to make money.
    - They attempt to solve a societal issue -> Life goal -> Connected to politics
      * I would like to bring this to my role in Argentinian government in the future and the learnings and connections from this program would be amazing.
    - My plan for next summer is to either work at a technology company (focused on AI, like OpenAI, C3 AI) and to continue scaling my startup.
  + I want to meet other people with entrepreneurship interests and a willingness to carry out these interests.
* What do you hope to take away from this program?
  + Varied perspectives of what it is like to carry out entrepreneurship projects in different industries and parts of the world. This would not only come from the other fellows through the monthly seminars, but also from classroom discussions of the HBS MBA Elective and through the people I get to meet at the business school.
  + Giving back the learnings, information and knowledge to people in high school, where I speak often.
  + I will be able to also apply my learnings to my startup.
* How can you contribute to the learning of your peers?
  + Connect to 1.1. I have worked on many startups like these in the past, as well as in bigger companies and investment firms, so I combine entrepreneurial, investing, and corporate perspectives. I can explain how different ideas/companies/project would be viewed through these different lenses.
  + I can share the challenges that I have come up against in my personal and professional journey, and how I have been able to overcome them. Short examples:
  + My advanced coursework in statistics/data analysis/computer science provides me with the tools required to provide ideas/leads to my peers on how to take their ideas to practice with concrete technologies/analysis techniques. This combined with my experience in project management allows me to guide them through the PM managements of organaizing their projects.

Semi draft:

* Why are you applying to the Undergraduate Technology Innovation Fellowship program?
* What do you hope to take away from this program?
* How can you contribute to the learning of your peers?
  + I resonate with the type of person the program is targeting. Two years ago my 3 best friends and I made a pact: come to the U.S., learn as much as we can, connect with people from all over, develop ourselves professionally, and then return to Argentina to help our country attain sustainable growth.
  + My first step was to pursue technical training at Rice University. I then transferred to Harvard in search of an atmosphere where students were both passionate about technological innovation and who were anxious to materialize tier innovations through startups.
  + Throughout high school, my gap year, and college, I have worked on a series of startups that all aim to solve issues affecting society. To me, it is equally as important that a venture can sustain itself financially through time as its ability to generate a positive effect in society.
  + **<Talk about previous startups here>**
  + Next summer I would like to work in a technology company focused on AI development, such as OpenAI or C3, to learn more about the ways we can apply the new and exciting models coming out every day to traditionally unappealing that significantly impact our economy and standards of living, such as agriculture, construction, and healthcare.
  + I want to join the program to meet outstanding students looking to apply their diverse knowledge and problem-solving skills to society’s most pressing issues.
  + Having a small number of students **like these** be part of a small structure program creates a space with a lot of opportunities to give and receive.
  + I look forward to being exposed to the various perspectives of what it is like to carry out entrepreneurial endeavors in different industries, around the world. These varied views would not only come from other fellows through the monthly seminars but also from classroom discussions in the elective HBS courses and through other professors and students I can meet in the business school.
  + I want to be able to incorporate these learning experiences into my future ventures and to bring them back to my different communities, so that other people in the College, at Rice, in high school, and in the general Argentinian entrepreneurial community can also leverage these insights to improve their projects.
  + Likewise, I hope to share my past experiences working in NGOs and startups with the other people in the program. Having worked in both entrepreneurial and corporate environments, and for a venture capital firm, I can provide different perspectives on the topics discussed throughout the fellowship, and explain how different ideas, companies, or projects would be viewed by individuals in these different domains. This can help the other students rethink their strategies for how to present their ideas to the government or investors, and how to market themselves to corporate clients.
  + I can also leverage my experience as a developer and project manager, as well as my coursework in data analysis and computer science, to provide other fellows with guidance on how to develop web platforms from the ground up. This includes the choice of technologies, resources required, and planning.
  + Overall, the program aligns with my short-term and long-term goals of **<insert summary of goals>** and will provide an opportunity to learn from people in the business school, so that I can share the knowledge to my other circles, and give back to the community.

I am applying for the Undergraduate Technology Innovation Fellowship program because it perfectly aligns with my passion for technology, innovation, and entrepreneurship. Two years ago, my three best friends and I made a pact to study in the U.S., absorb as much knowledge as possible, connect with people from diverse backgrounds, develop ourselves professionally, and then return to Argentina to contribute to our country's sustainable growth.

My first step towards this goal was to pursue technical training at Rice University. I then transferred to Harvard to immerse myself in an environment where students were both passionate about technological innovation and eager to materialize their ideas through startups. Throughout high school, my gap year, and college, I have been involved in several startups that aim to solve societal issues. For me, it is crucial that a venture can sustain itself financially while generating a positive impact on society.

I have co-founded and worked on various startups, including Recyco, a waste management startup, and Reindi, a healthcare documents platform on the Ethereum blockchain. My experiences in these ventures and working for a venture capital firm have given me valuable insights into the entrepreneurial and corporate landscape.

Next summer, I plan to work in a technology company focused on AI development, such as OpenAI or C3, to explore the application of cutting-edge AI models in traditionally unappealing but impactful sectors like agriculture and construction.

Joining the program would allow me to connect with outstanding students looking to apply their diverse knowledge and problem-solving skills to society's most pressing issues. The small cohort structure fosters a unique environment for exchanging ideas and experiences.

I look forward to gaining exposure to various perspectives on entrepreneurship in different industries worldwide. These insights will come not only from fellow students during monthly seminars but also from classroom discussions in elective HBS courses and interactions with professors and students at the business school. I intend to incorporate these learning experiences into my future ventures and share them with my communities at Harvard, Rice, and in Argentina, to inspire others to improve their projects.

In turn, I hope to share my past experiences in NGOs, startups, and corporate environments with my peers in the program. I can offer insights into how different ideas, companies, or projects are perceived by individuals in these domains, helping my fellow students refine their strategies for presenting their ideas to governments, investors, and corporate clients.

Additionally, I can leverage my experience as a developer and project manager, as well as my coursework in data analysis and computer science, to guide other fellows on developing web platforms from scratch. This includes making informed decisions on technology selection, resource allocation, and project planning.

In summary, the Undergraduate Technology Innovation Fellowship program aligns with my short-term and long-term goals of creating a positive impact through technology and innovation. The program provides an opportunity to learn from and contribute to the business school community, enabling me to share this knowledge with my various circles and give back to society.

The Undergraduate Technology Innovation Fellowship program perfectly encapsulates my love of technology, innovation, and entrepreneurship. My three closest friends and I struck a deal two years ago that we would study in the United States, absorb as much knowledge as possible, connect with people from diverse backgrounds, develop ourselves professionally, and then return to Argentina to contribute to our country's sustainable growth.

I went to Rice University to get technical training as my initial step toward achieving my goals. I then transferred to Harvard in search of an environment where people were both passionate about technological innovation and eager to materialize their innovations through startups. Throughout high school, my gap year, and college, I have been involved in several startups that aim to solve broad social issues. I believe it is crucial that a venture can sustain itself financially while generating a positive impact on society.

I co-founded and contributed to several startups, including Recyco, a recycling analytics company; Reindi, a web-based platform for managing healthcare reimbursement documentation; and Rutd, an application to help U.S. veterans identify and apply to appropriate resources nearby. My involvement in these projects and my time spent working for a venture capital firm have given me valuable insight into the entrepreneurial and corporate landscape. Next summer, I plan to work in a technology company focused on AI development, such as OpenAI or C3, to explore the application of cutting-edge AI models in traditionally unappealing but impactful sectors like agriculture and construction.

Joining the program would allow me to connect with outstanding students looking to apply their diverse knowledge and problem-solving skills to society's most pressing issues. The small cohort structure fosters a unique environment for exchanging ideas and experiences.

I look forward to gaining exposure to various perspectives on entrepreneurship in different industries worldwide. These insights will come not only from fellow students during monthly seminars but also from classroom discussions in elective HBS courses and interactions with professors and students at the business school. I intend to incorporate these learning experiences into my future ventures and share them with my communities at Harvard, Rice, and in Argentina, to inspire others to improve their projects.

In turn, I hope to share my past experiences in NGOs, startups, and corporate environments with my peers in the program. I can assist my fellow students in honing their tactics for pitching their concepts to decision-makers, investors, and corporate clients by providing insights into how certain ideas, businesses, or projects are seen by people in these fields.

In addition, I can leverage my experience as a developer and project manager, as well as my coursework in data analysis and computer science, to provide other fellows with guidance on how to develop web platforms from scratch.

In conclusion, the Undergraduate Technology Innovation Fellowship program aligns with my immediate and long-term goals of generating positive impact through technology and innovation.

The program requests a letter of recommendation from a faculty member or supervisor who knows me well and can speak to the following:

* Academic achievement
* Leadership potential
* Having a "builder" orientation with a zeal for solving problems, as evidenced by experience in campus laboratories, course projects, and a diverse range of innovative or entrepreneurial endeavors
* Acumen around technology and a passion to learn more
* Demonstrated interest in a career in technology and innovation or applications of technology to other fields