HTLC 2023 Teacher Application Form

**Why do you want to become a teacher at HTLC? What qualities/experiences do you have that will make you a good fit as a teacher? (~200 words)**

Teachers play a crucial role in shaping our lives, and I am no exception. Without their guidance, I would not be where I am today. As a result, I have a strong desire to give back and help others achieve their full potential. My experience as a trainer assistant in the Science Olympiads and Informatics Olympiads sparked my passion for teaching and learning. It taught me the value of breaking down complex topics into simpler concepts to help students better understand and apply them.

My training as an OWeek Advisor and Peer Academic Advisor at Rice University provided me with the skills necessary to connect with students on a deeper level. I understand the importance of creating a supportive and inclusive environment that fosters growth and learning. These experiences have made me more patient, empathetic, and understanding of different perspectives.

Becoming a teacher at HTLC is the perfect opportunity for me to continue my passion for teaching and to make a meaningful impact on the lives of young students. I am excited about the prospect of facilitating discussions on sensitive and controversial topics, challenging students to think critically, and helping them develop the skills they need to succeed. I believe that my experience, skills, and passion make me a strong fit for this role, and I am committed to making a positive difference in the lives of my students.

**If you have previous teaching experience, please elaborate here. (~100-200 words)**

- In high school, after participating in the Science Olympiads and the Informatics Olympiads, I gave lectures for the younger students one level below on physics (dynamics, kinematics), programming (C++, search algorithms, graph algorithms), and chemistry (balancing equations).

- During COVID-19 quarantine, I have lectures on web development for older people (40+ age range) since they wanted to use their newly found time to develop a new useful skill. For the people that were a bit more knowledgeable in technology I gave advanced lectures on web architecture and modular backend design.

- While I worked at Romulus Capital during my gap year, I designed the introductory material for new interns that explained how the Venture Capital industry worked, what we look for in a potential investment, and how the inner processes of the firm worked.

- At Rice I trained to be a Peer Academic Advisor, which basically consisted in learning on the rules regarding graduation requirements, recommended classes, and study tips to prepare new students for college academic life, and to provide continuing support for sophomores and upperclassmen.

- At Recyco (Argentinian startup) I onboarded and trained new engineers in our software architecture.

- While at Harvard, I provided tutoring for friends that needed help in Probability/Statistics.

**Please outline a lecture/workshop (typically a 45 minute lecture) you would be interested in presenting during the conference. Past lectures have included networking, public speaking, startups 101, and conflict resolution. (~100-200 words)**

I went over the word limit for the sake of detail, but if you are lacking time, feel free to skip over the examples list, since the rest of the text will give the general idea of the lecture.

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.

Some examples may include:

- Probability in games of chance: Showcasing the probabilities involved in games such as rolling dice, flipping coins, and drawing cards. It could be a fun visual way of introducing them to the basic concepts.

- Probability in sports: Sports are something that likely a lot of students will be interested in. We could discuss how statistics are used to evaluate the players and make strategic decisions in games.

- Medical statistics: We can discuss how researchers use statistical analysis to evaluate the effectiveness of treatment, identify risk factors for diseases, and make predictions about patients' outcomes. We can also talk about how information collected from real-world samples can be used to model the future spread of disease.

- Social media and big data: We can discuss how companies use information collected about users to personalize ads, recommends products/videos/books, and predict user behavior.

- Other examples could include weather forecasting and financial modeling.

Providing a wide range of applications and examples increases the chances that every student will find at least one interesting, and will remain reneged throughout the lecture.

We would discuss how probability and statistics help us make informed decisions and predictions, and how they play a crucial role in many industries and fields. I would aim to make the content accessible to a general audience, while also providing external resources for an interested audience with a more technical background. Overall, my goal would be to share my passion for probability and statistics and demonstrate the practical relevance of this exciting field.

**Please outline an extracurricular activity you would be interested in leading. These are more hands-on/interactive and are spread out throughout the week (each session is usually 45 minutes). Past extracurriculars have included hip hop, drama, taekwondo, and juggling. (~100-200 words)**

- A great way to bring people together is by making them collaborate toward a common goal. Even better if they get to eat the common goal. We did a Sushi-making Social for a school club and it went great. It was also a great opportunity for older and younger people to connect, which may not always happen in other activities.

- In the same spirit as the previous one, there is a very fun game for large groups to play that involves setting up many different “mini-games” in different rooms of the same building and splitting everyone into moderately large teams. Every person in a team has to sign up, by rounds, for the mini-game (they can’t play the same one more than once in a row), and the result of the mini-game determines how many points get added to their team scoreboard. The team with the most points at the end wins. The idea is to make most mini-games collaborative so that two people from each team have to participate. This is usually set up so that there is a lot of running and energy going around, and people are focused on the mini-games, providing a low-pressure social environment for people to meet each other. We did this during a club retreat and it worked wonderfully. I still remember many of the people in my 15-person team.

**At HTLC, we lead discussion groups with the high schoolers that might touch on sensitive or controversial topics. How do you see yourself facilitating sensitive discussion among students with different opinions?**

Facilitating discussions about sensitive or controversial topics can be challenging, especially when students have different opinions. However, I believe that it's important to create a safe and respectful environment where students feel comfortable sharing their perspectives and engaging in meaningful dialogue.

To achieve this, I would start by setting clear ground rules for the discussion, such as respecting each other's opinions, avoiding personal attacks, and actively listening to others. I would also encourage students to share their own experiences and perspectives, rather than trying to persuade others to agree with them.

In addition, I would make sure to acknowledge and validate different viewpoints, even if I don't personally agree with them. By doing so, I hope to foster a culture of open-mindedness and understanding, where students can learn from each other and grow in their understanding of complex issues.

Finally, I would be open and flexible in my approach, adapting to the needs and dynamics of the particular group of students I'm working with. Whether that means providing additional resources or adjusting the discussion format, I would do my best to ensure that everyone feels heard and respected.

**Fun: If you could spend a free day in Taipei, Taiwan, what would you do?**

If I had a free day in Taipei, Taiwan, I would definitely make time to visit two iconic landmarks - the Chiang Kai-Shek Memorial Hall and the Taipei 101 building.

What attracts me the most about the Memorial Hall estate is the landscaped gardens around it. I am a huge fan of organized gardens this is an incredible (and vast) example of them. Besides exploring the gardens, I would love to admire the magnitude and incredible architecture of the Memorial Hall itself.

I would also like to visit the Taipei 101 building, one of the tallest skyscrapers in the world. What fascinates me most about this building is its unique design, particularly the large stabilizer ball that is visible at the top of the building. I find it super interesting that the designers chose to turn the stabilizer mass, which could have been an eyesore, and is typically hidden away in these sorts of buildings, into a creative public-facing feature, and went all the way to creating a mascot after it. I would love to see the golden ball up close and take in the stunning views of the city from the top of the building.

Overall, a day spent visiting these two landmarks would be an amazing and unforgettable experience.