1 Question 1

Question 1: What are your personal and academic reasons for wishing to participate in this Dialogue of Civilizations program?

Personally, I have always wanted to visit intellectual high points in other countries. For the most part, when I visit a new country, I travel with my family and together, we visit the standard tourist locations. We walk the walk, and we see the sights. For example, when I visited Dubai for a week, I saw many attractions, which include the Burj Khalifa, Burj Al Arab, the man-made palm islands, the famous indoor ski slope in the Mall of the Emirates. While all of these sights were fascinating, and enjoyable to watch, not once did I experience the brilliant intellectual legacy that the Arabs left us. I did not see a single university, or museum, or place of learning. I marveled in the standard views that every other person who walked my footsteps had seen. I wanted something more. I wanted to see the tools that early Arab astronomers used to follow the movements of the celestial bodies. I wanted to see the books that early mathematicians wrote to explain the concept of zero. I yearned to appreciate the contributions that these early intellectuals to allow us to come so far. This is something that I hope this trip to Italy will help me to achieve. We will visit places like the Museum of Computational Tools and Fondazione Scienza e Technica. Both of which places that represent and portray significant human intellectual advancements.

I also wish to experience the culture of this country without that layer of tourist clouding my vision. When I typically visit another country, I typically only stay for a week. That is not enough time to develop a schedule to incorporate leisure time to truly *live* in that country. To talk with the locals, learn from them. That is what I believe it means to truly experience a new culture.

2 Question 2

Question 2: How will the program further your academic and career goals?

I am a Computer Science major. Design algorithms, analyzing their complexity and optimizing them is my thing. The morning class we will be taking every morning in Italy will be catered to different revolutions in scientific thought. Professor Meleis described 2 periods in particular. The first was and era of significant scientific progress. This was a period that scientists believe that any problem can be solved with enough brain power and resources. The second was an era in which scientists discovered that there were particular problems that were extremely difficult to solve. There might even be a possibility that they cannot be solved in an efficient manner. I believe understanding these types of problems is a way to truly grasp the limitations of certain algorithms and understanding the predicaments of computer science at its core. In Theory

of Computation, we discussed problems of NP completeness and undecidability problems in relation to proving their theories. In this study abroad class, I expect to see more concrete and real examples of the theories we discussed in class. This will help solidify and connect the theories to the concrete. These are problems that are tackled every day in back-end software design. Coming up with the most efficient way to design and implement algorithms is a useful skill, and knowing the upper bounds of those limitations can only help.

3 Question 3

Question 3: What is your previous travel and language experience, if any?

Both my mother and father's side of the family are from Kerala. A state in the southwestern portion of India. Kerala features a tropical, moist climate with a dry season and a wet season. I travel to India about once every 5 years, in order to visit relatives and attend weddings. We stay for about a month at a time. Other than those trips to India, I have traveled to Dubai for a week for vacation. I also spent 3 days in Cozumel Mexico as part of a week long cruise vacation.

I am almost fluent in the local language of Kerala, Malayalam. I speak it well enough that my relatives and family can understand me. I can also read and write in Malayalam, which is a skill that many other American-born Malayalees my age cannot boast of. I have my parents to thank for that. They encouraged me to learn at a very young age. Other than Malayalam, I also know enough Spanish to communicate and understand when I need to. Actually, in Cozumel, I took part in a city-wide *Amazing Race* style scavenger hunt. I had to use much of the Spanish I learned to communicate with the locals and get a geographic bearing of where our team was headed throughout the race. I have about 4 years of high school level Spanish. I am also currently learning a little bit of Hindi through a Northeastern Language learning program called NUCALLS. I have always been fascinated with non-Latin based languages.

4 Question 4

Question 4: What courses have you taken which are directly relevant to the program?

Many of the lessons in the morning class deal with computation and complexity. These are topics I am very familiar with through courses like Theory of Computation and Algorithms and Data. Both of these courses cover the issues with calculating runtime and creating efficient algorithms. One class in particular during this Italy trip covers fractals. Fractals are a repeating pattern that displays at every scale. No matter how large or small. These fractals can be

created using recursive functions. We saw how to make things like the dragon fractal in Fundamentals of Computer Science. I am deeply interested in seeing how fractals tie in with complexity and what the early Italians thought of them. In fact many fractals can be found in nature, like the snowflake or a fern leaf.