

CWSF 2018 - Ottawa, Ontario



Claire Le Donne

Encryption... And All That Jazz: Text-to-Music-to-Text Encrypted Communication

Challenge: Information

Category: Junior

Region: Bay Area

City: Hamilton, ON

School: Corpus Christi

Abstract: I created a program that allows a user to type a text message which is then converted into a musical format using an encryption key. The musical message is transmitted as sound, received by a listening device, and then decrypted back into the original text message. The project is a successful proof of concept for text-to-music-to-text encrypted communication.

Biography

My name is Claire Le Donne. I am a grade 8 student at Corpus Christi School in Hamilton, Ontario. I am a 3rd-degree black belt in karate and a former Ontario Legislative Page. I enjoy math and science and I also love the Arts. I enjoy drawing and animation and have recently submitted some of my work to international competitions. I also have a passion for music? I play the guitar, piano, and sing. I am honoured to have received my school board's Director's Award of Excellence in Science and Technology and a scholarship to attend McMaster University's Engineering Camp. The inspiration for my project emerged from my love of music and listening to TED-Talks about music's relationship to math and language. I was intrigued and began to wonder what connections I could form with music and communication. My project is a successful proof of concept for text-to-music-to-text encrypted communication. I would like to continue developing my project to the point where it can be used in a real-world application. My advice to other students is to be curious. The best projects come from asking questions and working hard to find the answers.

Youth Science Canada
PO Box 297
Pickering ON L1V 2R4
www.youthscience.ca / info@youthscience.ca
416-341-0040