

## CWSF 2018 - Ottawa, Ontario



### Grant Mansiere

#### Finding the Happy Medium in High Frequency Trading

**Challenge:** Information

**Category:** Senior

**Region:** Central Okanagan

**City:** Summerland, BC

**School:** Summerland Secondary

**Abstract:** High Frequency Stock Traders (HFT) use computers to buy and sell millions of shares, in milliseconds. HFT benefits from arbitrage, through transactions on the same commodity on different markets where it has a pennies difference in price for milliseconds. Speed is paramount for these large volume trades and locating at or in between the two stock exchanges could help them approach speed of light trading.

#### Biography

My name is Grant Mansiere, and I am currently a grade 12 student. I enjoy longboarding, cycling, and keeping busy on small projects. I intend to go to University of Calgary to study business. I run two businesses at home: an online sales service and a yard care service. The inspiration for my project came from a radio show that I heard by chance late at night, and the topic was high frequency stock traders, who were constrained by the speed of the transmission cables. Looking into this I wanted to know if to speed their transmission speeds for arbitrage, would it be beneficial for them to have an additional location in between stock exchanges reducing their latency. Further plans for this project would be to look into how high frequency trading has affected exchange traded funds, a low volatility investment. For students considering participating in science fair my advice would be to look in-depth into a concise area of interest. There is always a project waiting to be found!

Youth Science Canada  
PO Box 297  
Pickering ON L1V 2R4  
[www.youthscience.ca](http://www.youthscience.ca) / [info@youthscience.ca](mailto:info@youthscience.ca)  
416-341-0040