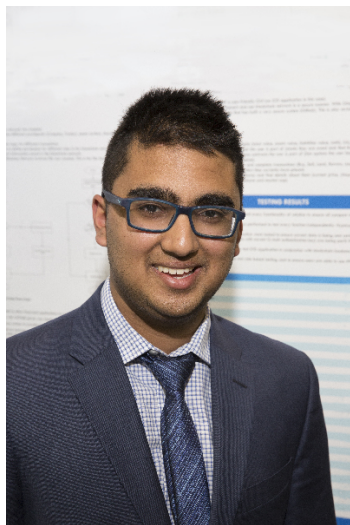


# CWSF 2019 - Fredericton, New Brunswick



## Sparsh Agrawal

### Improving Current Stock-Trading Infrastructure Using a Blockchain Network

**Challenge:** Information

**Category:** Intermediate

**Region:** Manitoba Schools Science Symposium

**City:** Winnipeg, MB

**School:** Fort Richmond Collegiate

**Abstract:** This project created a prototype of a blockchain based stock trading network in order to solve some of the existing issues in stock trading networks. By utilizing smart contracts and blockchain technology, the created solution streamlined and automated post-trade procedures, resolving the issues of extended settlement periods, expensive intermediaries and data management inefficiencies. Additionally, an iOS application was created to provide a user-friendly interface.

#### Biography

Hi, my name is Sparsh Agrawal. I am a grade 10 student at Fort Richmond Collegiate in Winnipeg Manitoba. My hobbies are debating, hockey and of course science fair. Over the past few years, I have been creating trading algorithms which is what inspired me to develop a new trading network infrastructure. Because of trading fees, my trading algorithms require a large starting amount of capital (which can be problematic for a high school student). This inspired me to think of a solution. This year I have created a blockchain based stock trading network that attempts to reduce settlement times, intermediary costs, and data management inefficiencies that are present in existing trading networks and exchanges. In the future, I hope to continue working in the field of computational finance and make a career in it. My biggest advice to someone interested in doing a science fair project would be to try and find a solution to a problem you face and to never give up. Working on a science fair project is tough and very frustrating, but when you work on something that you care about, you're able to persevere through.

#### Awards

#### Value

Excellence Award - Intermediate - Bronze Medal Sponsor: Youth Science Canada	
Western University Scholarship Bronze Medallist - \$1000 Entrance Scholarship Sponsor: Western University	\$1 000
Total	\$1 000