Investor Days

Final Presentation - 11/30

QUANT SC

Meet The Team

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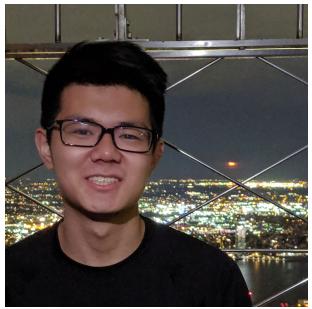
Project Manager

Junior
Applied Mathematics

Morgan Lu
Analyst



Junior
Computer Science and Economics/Mathematics

Syrah Vaswani
Analyst

Junior
Business Administration

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Junior
Economics
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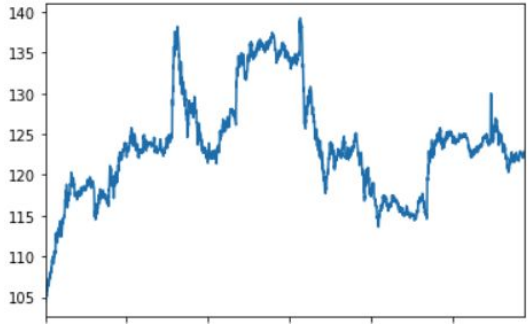
Problem Identification



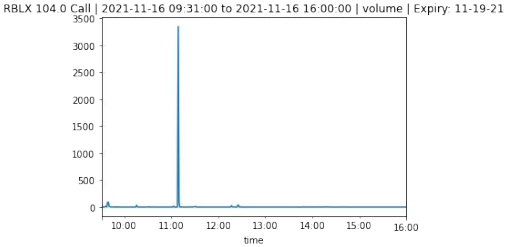
- Main objective → investigate heightened variability of price movements on investor days

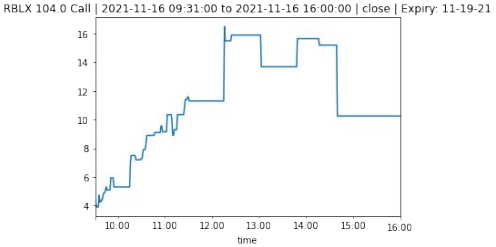
Roblox Investor Day

- Hosted on November 16, 2021 at 8am PT/11am ET
- Stats:
  - Opening Price: $107.01
  - Closing Price: $116.18
- Key Takeaways:
  - Focus on metaverse
  - Release of public analysis
  - Potential development of three games for students

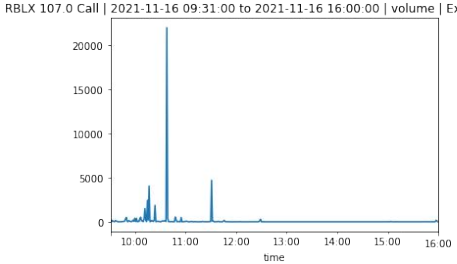
Roblox Analysis: Volume

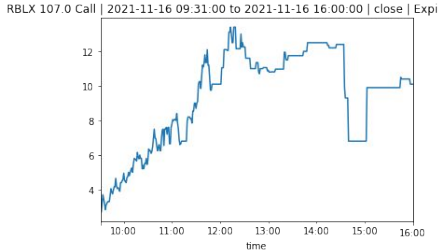
OTM



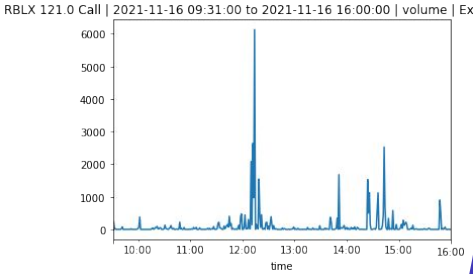


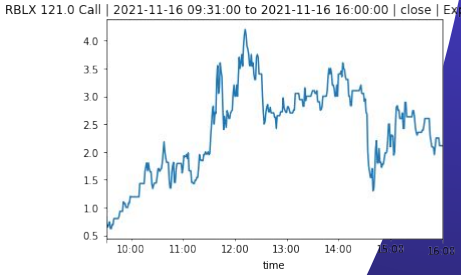
ATM





ITM

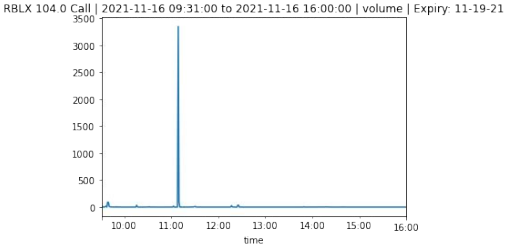


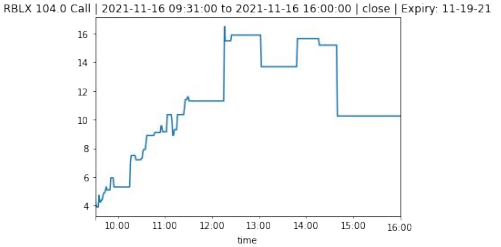


Key Takeaways: Spikes in volume reflect fluctuations in price

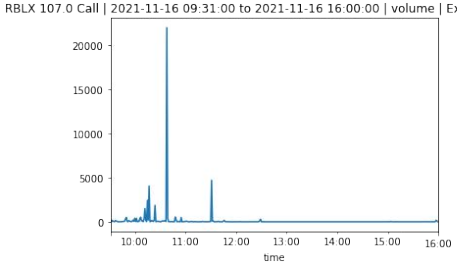
Roblox Analysis: Moneyness

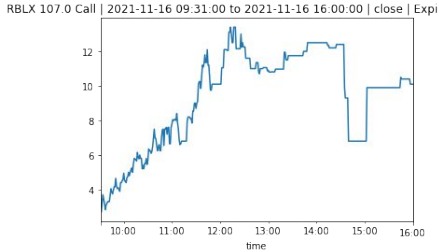
OTM



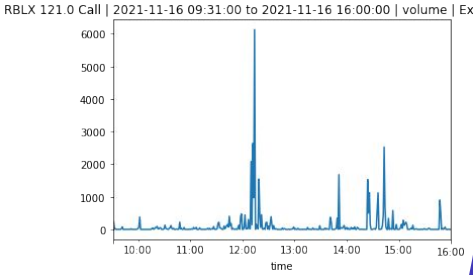


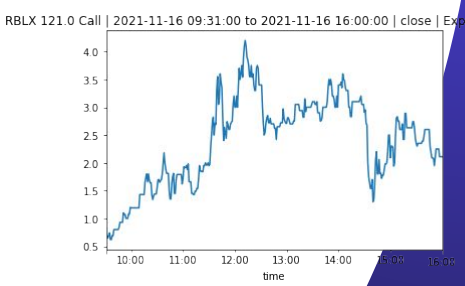
ATM





ITM



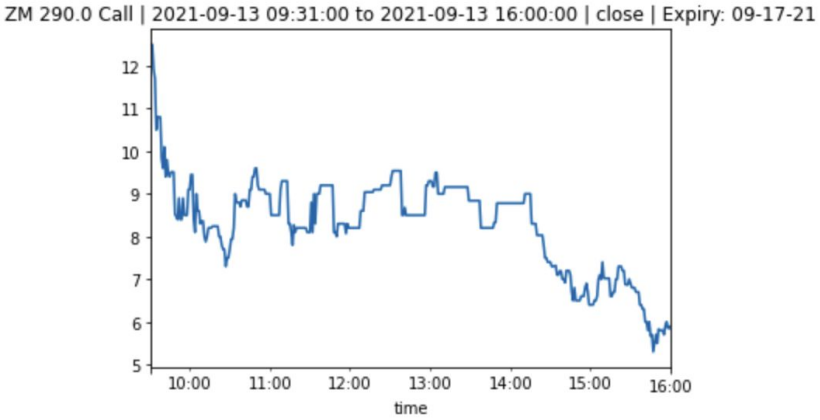


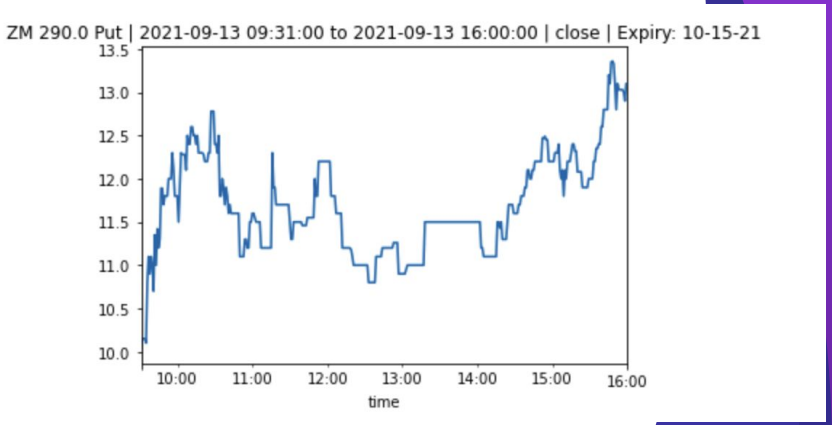
Key Takeaways: ATM and OTM options prices move the most and appear to be more volatile than ITM options prices

Zoom Investor Day

- Investor or “Analyst” Day was held on 9/13/21
- Stock stats:
  - Open: 300.16
  - Close: 290.24
  - High: 300.28
  - Low : 289.82
- Focus on strong ecosystem of products and large customer base

Options Graphs



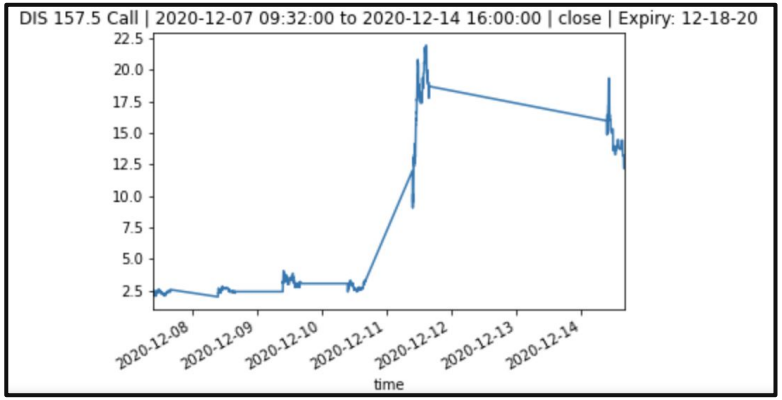


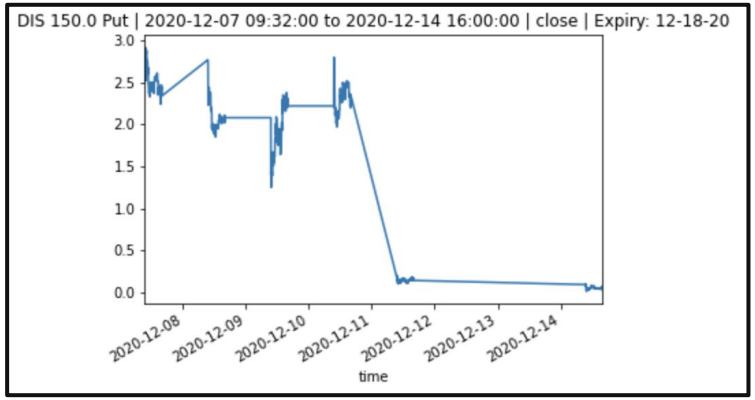
Key Takeaway: Value of stock went down, causing the calls to decrease in price and the puts to increase.

Disney Investor Day: General Information

- Investor Day on December 12th, 2020
  - Included financial estimates and statements
  - Emphasis on the increase in users of streaming platforms
  - Disney+, Hulu, and ESPN+ becoming more important in the industry and amassing more subscribers

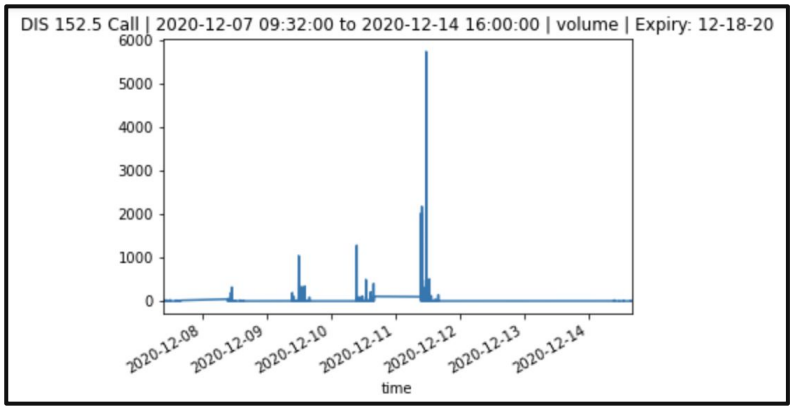
Disney Investor Day: Close Prices

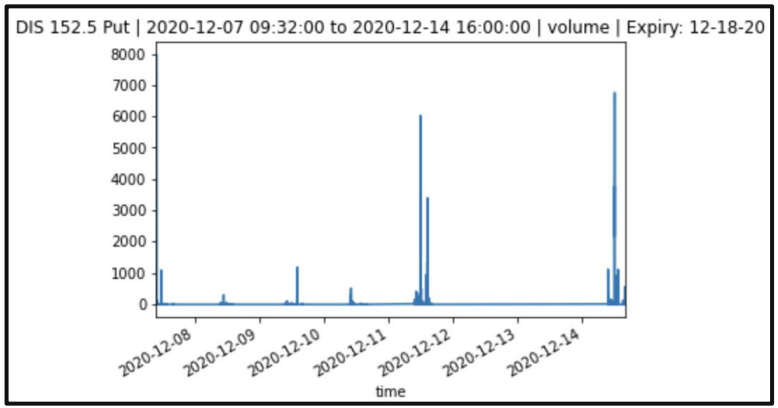




- Key Takeaway ⟶ opposing movement in call and put close prices, whereby put prices are more volatile before the investor day

Disney Investor Day: Volume Graphs





- Key Takeaway → spikes in call and put volume graphs occur at similar intervals, with little volatility consistently before or after investor day

What We Learned

- Certain relationships are to be expected in these graphs
  - Opposing movements of call and put prices
- Understanding a company's statements on Investment Days allow us to better understand the nature of these relationship
- May be difficult to differentiate between volatility as a result of Investor Days and as a result of volatility that naturally occurs in these prices
- QuantConnect
- GitHub
- Pandas

Challenges

- Utilizing the Quantconnect platform
  - Handling equities vs options
  - Handling different time periods
  - Manipulating dataframes to gather necessary data
  - Calculating implied volatility
- Graphing data
  - Using pandas and matplotlib to graph various data on investor days

Next Steps

- Is there a significant enough relationship that we can capitalize on changes in price due to Investor Days?
- Better understand the relationship between Investor Day information and direction of movements → Can we quantify this?
- Look at changes in implied volatility of options

Thank you!