

Project Github Repository: <https://github.com/danielhe9999/ChessPerformanceAnalysis>

**Introduction:** During the COVID-19 pandemic, large gatherings were cancelled and limited to virtual meetings. Therefore, over the board chess tournaments were not held. However, young children continued to study hard and improve at the game. The first official tournament that resumed during the pandemic was the National Open which was held in Las Vegas in June 2021. Lots of juniors performed very well. This project is an analysis of whether or not juniors outperformed the average significantly.

**Technical Skills Used:** The original data was found on a static website, which was scraped using a Python package called BeautifulSoup. The Python pandas library was further used for data manipulation and cleaning. Finally, Excel was used to generate the scatterplot visualizations.

**Web Scraping Procedure:** The full list of players had info on their FIDE (International) rating, USCF (National) ratings, and FIDE ID. As seen in the second picture below, FIDE ID was used to scrape their birth year. With these two methods, the final dataset had all the relevant features.

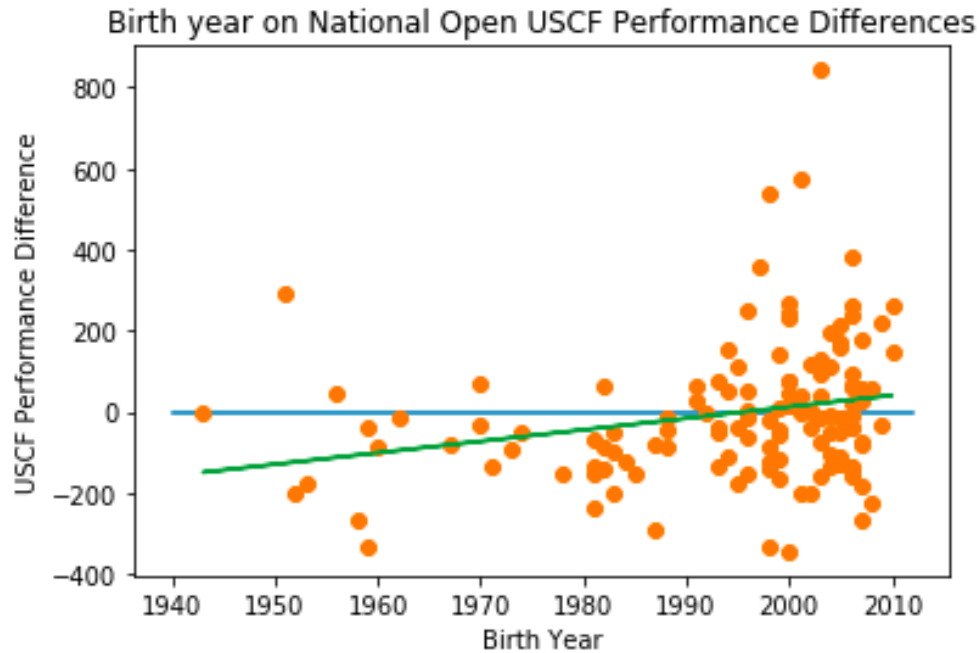
| NO | FIDE | USCF |    | NAME                  | ST  | USCFID   | EXP   | FIDEID   | SCH  | BYES | NOTES * |
|----|------|------|----|-----------------------|-----|----------|-------|----------|------|------|---------|
| 1  | 2674 | 2749 | GM | Illia Nyzhnyk         | UKR | 15477488 | 06/22 | 14118084 | 5day | 2    |         |
| 2  | 2636 | 2712 | GM | Lazaro Bruzon Batista | MO  | 15199286 | Life  | 3503739  | 5day | 4,6  |         |
| 3  | 2635 | 2726 | GM | Benjamin Gledura      | HUN | 16429168 | 10/21 | 712779   | 5day |      |         |
| 4  | 2635 | 2724 | GM | Hans Niemann          | CT  | 15041466 | Life  | 2093596  | 5day |      |         |

## Nyzhnyk, Illya

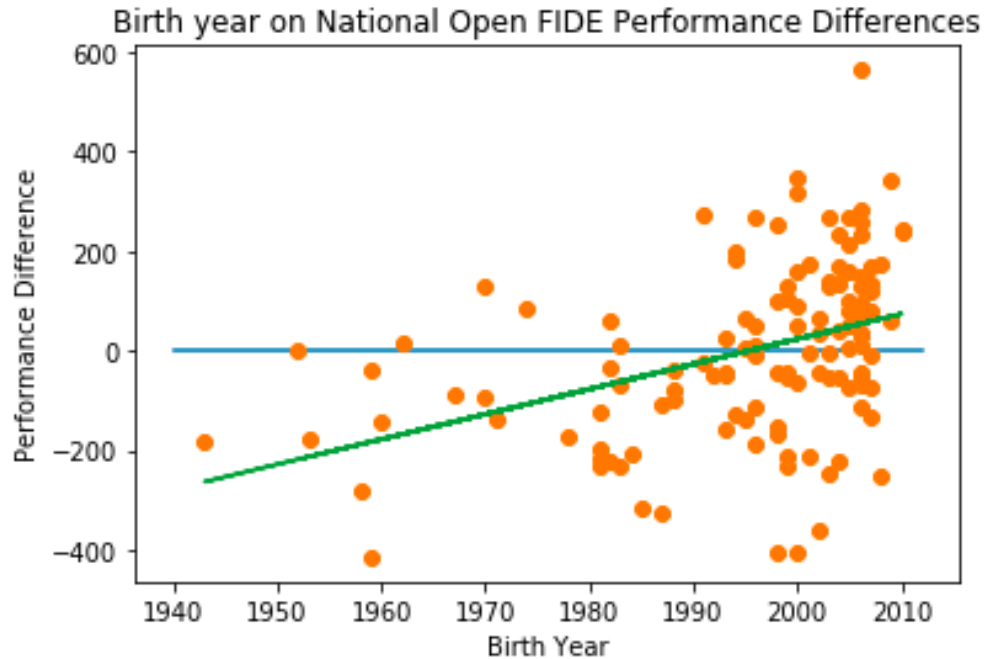
|                      |          |             |             |
|----------------------|----------|-------------|-------------|
| World Rank (Active): | 58       | B-Year:     | 1996        |
| Federation:          | Ukraine  | Sex:        | Male        |
| FIDE ID:             | 14118084 | FIDE title: | Grandmaster |

### Rating

|          |            |            |
|----------|------------|------------|
| std 2674 | rapid 2658 | blitz 2694 |
|----------|------------|------------|



*The blue line represents the null hypothesis of 0 performance difference. The green line represents the empirical data. Note the slight upward trend.*



*The blue line represents the null hypothesis of 0 performance difference. The green line represents the empirical data. Note the large upward trend.*

**Conclusion:** From the charts, it is clear that there is an upward trend for performance difference the younger the player is, with a far greater slope for FIDE ratings. While this evidence clearly supports the statement that juniors outperformed the older players, a next step is to compare these performances with those of a tournament before COVID-19.