

# Bret Allinott

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## Education

- **Master of Arts, *Economics***

University of Alberta (Edmonton, AB)

September 2021 - September 2022

- **Bachelor of Arts, *Honours Economics (GPA: 3.9)***

University of Alberta (Edmonton, AB)

September 2018 - April 2021

## Achievements

- Emerson and Tang Family Scholarship (University of Alberta, 2020)
  - *Awarded to a student with superior academic achievement entering any year of study for a Bachelor of Arts with a major or minor in Economics. Selection based on academic achievement in courses taken in Economics and demonstrated involvement in sports. Preference given to a student from rural Alberta.*
- KD Verville Scholarship for Excellence in Honors Economics (University of Alberta, 2020)
  - *Award presented for high academic achievement in the Honors Economics program, with special focus to student leaders who actively participate in Canadian democracy.*
- Gwendolyn Ewan Scholarship (University of Alberta, 2019)
  - *Presented to the student from the Northwest Territories with the highest GPA at the University of Alberta.*
- Deans Honours List (University of Alberta, 2019 & 2020)
  - *Presented to students possessing a 3.5 GPA or better on a full-time course load.*
- Economics Honors Awards (University of Alberta, 2018 & 2019 & 2020)
  - *Awarded to students with satisfactory academic standing enrolled in the second, third or fourth year of an undergraduate degree in Honors Economics in the Faculty of Arts. Selection based on academic standing. Part time students can be considered for this award.*
- Minister's award for academic excellence (Diamond Jenness Secondary School)

- *Award presented for high academic achievement, as well as leadership, dedication and commitment to the school community.*
- Bronze governor generals academic medal (Diamond Jenness Secondary School)
  - *Award presented to the student with the highest average in a graduating class*

## Non-Published Research

### **An Empirical Analysis of a Two-Wage Monocentric City Model in Edmonton**

- Using housing assessment data in Edmonton I analyze housing location decisions of two groups, rich and poor, after an income increase through a modified monocentric city model. Specifically, testing the theoretical prediction of an 'expansion' of rich neighborhoods.
- This was written as a final paper for ECON 462 – Urban Economics.

## Experience

### **Citizenship Assistant (IRCC)** – Government of Canada – *June to December (2019/2020)*

- Interacted directly with the public during citizenship tests and ceremonies.
- Assisted in creating an efficient workflow for Citizenship Officers.
- Worked on self-directed projects.
- Assisted in the maintenance and upkeep of filing systems.
- Learned to make decisions on problems that deviated from standard procedure.

### **Teaching Assistant (Economics)** – University of Alberta - *September to April (2019/2020)*

- Held office hours for introductory economics courses (ECON 101/102).
- Improved upon adaptability, as each student had different needs.
- Developed strategies to understand each student and how they learn best.
- Reviewed exams with students to ensure understanding of each topic.
- Managed multiple students needing assistance.

## Projects

### **Logit Forecast of Stock Prices**

- Constructed a Logit model to forecast whether Microsoft stock price increased or decreased on the next day
- Used direct forecasting to obtain a probability estimate stock price increases
- Used cross validation to obtain the optimal number of lags in the model

- Employed bootstrapping to obtain a prediction interval around my estimate

### **ARIMA Forecast of Canadian GDP**

- Constructed a basic ARMA model to forecast Canadian GDP to the end of 2021
- Used R for data manipulation and selection of the optimal ARMA model. Statistical tests for stationarity and serial correlation were also conducted.
- Project code is available on my website.

### **COVID-19 Data Visualization**

- Used global COVID-19 data from the European Centre for Disease Prevention to visualize coronavirus cases and deaths in Canada, Italy, South Korea, and The United States.
- Data manipulation and visualization was performed with R, project code is available on my website.

### **Skills**

- Proficient in LaTeX and R
- Proficient with time series models in R, as well as machine learning applications, such as time series cross validation and model selection
- Familiarity with Python and Stata