#### Comparing Machine Learning Algorithms on Time Series Data

by

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Previous Degrees (i.e. Degree, University, Year) Bachelor of Science, UNB, 2019

## A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF

**Bachelor of Computer Science** 

Supervisor(s): Dr. P.Mahanti, Department of Computer Science

#### THE UNIVERSITY OF NEW BRUNSWICK

December, 2021

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### Abstract

Start writing from here.

#### Introduction

"The techniques I developed for studying turbulence, like weather, also apply to the stock market".[2] The common techniques shared between meteorological and financial data is the field known as time series data. Which can be defined as "a sequence of observations measured as successive times."[1] In this project I set out to compare different machine learning algorithms applied to Black Berry stock data collected from February 3 1999 to September 27 2021. The first thing I am going to do is outline some background information about all of the different machine learning algorithms applied to the data and explain time series some more. Following that I am going to outline the methods applied and discuss the results.

### **Background Information**

#### Time Series

To begin we are firstly going to expand some more on time series data

**ARIMA** 

ARCH/GARCH

Long Short Term Memories

Convolutional Neural Network

Methods

Discussion

Conclusion

### **Bibliography**

- [1] Time series, pp. 536–539, Springer New York, New York, NY, 2008.
- $[2] \ \ Benoit \ Mandlebrot, \ Benoit \ mandlebrot \ quotes.$

# Glossary (if any)

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#### Vita

Candidate's full name: University attended (with dates and degrees obtained): Publications: Conference Presentations: