

JUSTIN CHARBONNEAU

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EXPERIENCE

DATA SCIENCE CO-OP / ARIO

January 2019 – Present, Ottawa

Developed a Jupyter Notebook for performing automated text extraction using various OCR engines and presented to the company. Investigated the feasibility of various ideas (facial recognition) to help the platform using OpenCV and dlib python libraries to detect facial features. Performed data exploration, data cleaning and data analysis on alternative datasets in R.

PROGRAMMER / FISHERIES AND OCEANS CANADA

January 2018 – December 2018, Ottawa

Development of a PHP web application (Data Validator) to help improve the accuracy of the information in our configuration management database called "Assyst". Used WET 4 ("Web Experience Toolkit") to develop the Data Validator. Exploited the "Assyst" API to update the information and created multiple SQL queries for displaying summary data using the Google Chart API.

JUNIOR SYSTEM ANALYST / FISHERIES AND OCEANS CANADA

April 2017 – December 2017, Ottawa

Wrote a PowerShell script to send personalized email notifications to technical contact users across the organization.

Integrated SQL views in Cognos Query Studio. Produced multiple ad-hoc reports using SQL queries to answer questions about the data stored in "Assyst".

EDUCATION

UNIVERSITY OF OTTAWA / MASTER OF ELECTRONIC BUSINESS TECHNOLOGIES

January 2018 – Present, Ottawa

Relevant Coursework: Data Mining and Concept Learning, Data Science Applications, Web Services, BI Technologies and Big Data

Research Project: Text Mining Market Data

UNIVERSITY OF OTTAWA / MANAGEMENT INFORMATION SYSTEMS AND ANALYTICS

January 2014 – December 2018, Ottawa

Relevant coursework: Statistics for Management, Applications of Statistical Methods in Business, Predictive Analytics

SKILLS

Python

Collected and cleaned text data using the nltk package and created a multi-class classification model using scikit-learn to classify authors given a sentence.

Used Keras to build a simple convolutional neural network to classify images.

R

Cleaned and pre-processed data for building a classification model using New York taxi data in the class Data Mining and Concept Learning.

Performed exploratory data analysis in R using Tidyverse and proposed a solution in a Kaggle competition (Data Science for Good: CareerVillage.org).

Completed multiple statistics courses on Coursera using R as the main tool. Good understanding of Regression.

SQL

Built a database in SQL Server for storing personal cell phone data. Mapped data from SQL Server, MySQL and Oracle databases. Created complex queries using sub-selects and multiple joins to reduce query time.

Time Series

Forecasted Amazon's quarterly revenue using various time series functions like ARIMA in the Predictive Analytics class.

Machine Learning

Compared various machine learning algorithms (classification and clustering) using the program WEKA as part of the Data Mining and Concept Learning class.

HTML5 / CSS / PHP

Built my personal website using the bootstrap framework. Built a web application called (Data Validator) using the WET 4 framework.

PROJECTS

IMDB Developed a multiple linear regression model to predict the IMDB movie rating Built a Shiny app where users could input data and output the predicted value based on my regression model

Twitter Data Wrote a Python script to gather tweets for cryptocurrencies and store the sensitivity in a MySQL database.

Awards/ Certifications

Bayesian Statistics: From Concept to Data Analysis Coursera 2019

Linear Regression and Modelling Coursera 2018

Merit Scholarship 2016