Anthony Rinaldi

CONTACT

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LinkedIn
Personal Website

SKILLS

Languages
English (native) | Italian (conversational)

Programming
Python | R | SQL | VBA | MATLAB | Java

Software
Microsoft Office Suite | Git | Confluence | Jira | Tableau | Bloomberg Terminal

HONOURS AND AWARDS

Vector Scholarship in Artificial Intelligence - $17,500
Vector Institute — 2022

Dean's Honor List
Western University — 2018-2022

Scotiabank HBA1 Award - $11,000
Ivey Business School — 2019

Andrew and Sarah Hamilton Scholarships - $1,800
Western University — 2018

Western Continuing Admission Scholarship - $10,000
Western University — 2017

EDUCATION

University of Toronto, Toronto, ON — 2023
Master of Science in Applied Computing
Incoming postgraduate student

Western University, London, ON — 2022
Bachelor of Science, Honors Specialization in Statistics
GPA: 96/100

Ivey Business School, London, ON — 2022
Honors Business Administration
GPA: 84/100

PROFESSIONAL EXPERIENCE

Western University, London, ON — Summer 2022
Undergraduate Student Researcher – Department of Statistics
- Continuing undergraduate thesis under the supervision of Dr. Cristián Bravo

TD Securities, Toronto, ON — Summer 2021
Sales & Trading Associate – FX Data Analytics and Innovation
- Developed a Python module to automatically publish Tableau Dashboards used in evaluating an FX auto-quoting algorithm; providing the business with a daily overview of client trends and a detailed analysis of trades
- Created a program to scrape information from the web and compile a report otherwise done manually; reducing human capital and creating efficiencies
- Automated over 10 recurring tasks; creating a pipeline that compiled and distributed all necessary reports
- Scrutinized current pricing structure of FX clients and proposed recommendations aimed at increasing revenue to management; the accepted proposals resulted in an expected annual $2M increase in revenue

TD Securities, Toronto, ON — Summer 2020
Sales & Trading Associate – Prime Brokerage
- Implemented a program to detect inconsistencies between the firm's transaction records and counterparty records; determining the true value of firm exposure and reducing overnight risk
- Created a program to request returns of fixed income loans in which the firm no longer had capacity to supply; automating a previously manual task taking over one hour daily
- Assisted in designing a collateral delivery optimizer; better allocating collateral based on cost and eligibility

Ivey Business School, London, ON — Oct. 2019-Mar. 2021
Ph.D. Research Assistant
- Built an algorithm to extract relevant material from various banks' quarterly earnings call transcripts; automated a manual process and decreased the time required by 66%
- Created a script to pull news articles from the web for specific companies, formatting the results as needed for subsequent modelling

UNDERGRADUATE COURSES

Statistical Programming

Data Analysis & Visualization

Statistical Learning

Mathematical Statistics

Introductory Data Science

Thesis Project in Statistical Sciences

Advanced Statistical Computing

Advanced Data Analysis

Data Analytics Consulting

ACHIEVEMENTS

PBSN Pro-Bono Consulting Competition
First Place

UWFA Stock Pitch Competition
Top 20 Delegate

BUSINESS 2257 Feasibility Competition
Top 5 Finalist

EXTRACURRICULAR EXPERIENCE

Mustang Capital
Analyst
- Assisted in managing a student investment fund of $45,000, through the derivatives and quantitative verticals
- Created programs to retrieve sports betting statistics from various websites, and subsequent analysis required to determine a probable trade idea; automating an investment strategy that generated 15% return per wager
- Produced Python screening programs based on trading strategies; reduced time spent on screening process

Ivey Sales & Trading Club
Mentor
- Served as a mentor by organizing events for younger students and assisting them with interview preparation and on-the-job knowledge

City of Toronto, Toronto, ON   Summer 2019
Financial Trainee
- Improved the City's Annual Financial Report through analysis of key financial indicators for enhanced recognition of financial position; supported management's goal of generating a concise, yet detailed report
- Optimized the process of analyzing customer accounts to identify erroneous transactions and respective cause; made procedure more efficient and saved time as a result of implemented suggestions

Great West Life Realty Advisors, Toronto, ON   Summer 2018
Summer Student
- Constructed business plans for the properties in the regional portfolio by assessing building tenancy strategy and geographical competition while summarizing key indicators such as building valuations and cash flows
- Optimized the current customer service training program through analysis of revenue loss from non-repeat tenants and identified excess program costs; resulted in potential gain of $5/square foot in rental rates

RESEARCH

A Transformer-Based Classification for Volcanic Seismic Signals
- Considered the use of the novel NLP technique *self-attention* for predicting volcanic event types from raw seismic signals
- Designed a DNN architecture that enables superior signal classification compared to traditional approaches
- Utilized different neural network layers such as convolutional, residual-convolutional, and long short-term memory
- Became versed with the Keras deep learning Python package

PROJECTS

Hack Western 8
- Invited to participate in the largest hackathon at Western University
- Developed a text and voice conversational AI bot intended for individuals seeking assistance with mental health problems
- Utilized the idea of transfer learning to fine-tune a pre-trained conversational GPT model on therapist conversation records

Historical ETF Holdings
- Developed software to track how BlackRock's ETF holdings change
- Stock data is scraped from the BlackRock website daily, parsed for relevant information, stored in a PostgreSQL database, and displayed on a website for visualization: http://www.etfdashboard.ca/
- Hosted an entire web server from a mini-Linux machine (Raspberry Pi), integrating Google Web Analytics to track visits and users

Algorithmic Trading Software
- Developed an automated mean-reversion trading strategy based on daily rebalancing of two highly correlated ETFs; presented a 3.3 Sharpe ratio when backtesting over the past four years
- Strategy uses the idea of Hidden Markov Models (specifically Kalman Filters) to predict correlation between the two ETFs daily
- Developed Java software to execute the strategy on a paper trading account

Stock Price Prediction
- Tested supervised learning models for predicting stock prices
- Attained stock prices of relevant companies through Python APIs
- Considered Lasso and Ridge regression, a simple neural network, support vector regression, and ARIMA models for the prediction task