Muhammad Ali Hafeez

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EDUCATION

University of Toronto, St George Campus **Toronto, ON, CA**
Mathematical and Physical Sciences – Actuarial Science (Major); Economics (Major); Statistics (Minor)
Relevant Coursework: Calculus with Proofs, Principles of Microeconomics, Data Science, Computer Programming

University of British Columbia **Kelowna, BC, CA**
Bachelor of Science – Economics (Transferred to University of Toronto, After 1st Year)
Cumulative GPA: 4.11 ⁄4.33; Dean's List

PROFESSIONAL EXPERIENCE

The Borgen Project **Toronto, ON, CA**
Public Relations Intern June 2023 – Present
- Devise strategy for outreach, create materials for media distribution, fundraising campaign, and donor relations.
- Conduct branding campaign, market research, launch and implement a campaign, and manage social media.

Wolfram **Toronto, ON, CA**
Wolfram Student Ambassador May 2023 – Present
- Representing Wolfram at my university by organizing activities or events
- Creating non-proprietary, open, and publicly available content for Wolfram like computational essays, social media posts, YouTube videos and general brand representation.

The Entertainer FZ LLC **Dubai, UAE**
Content Executive Intern, Production Department June 2022 – July 2022
- Supervised under the global head of production assisted an app-revamping project in Middle Eastern countries.
- Ensured business partners were meeting contractual obligations.
- Built progress reports in collaboration with the graphical design team for the global production team.

EXTRA-CURRICULAR ACTIVITIES

University of Toronto Machine Intelligence Student Team (UTMIST) **Toronto, ON, CA**
Team Member Jan 2023 – Present
- Learning to build machine intelligence systems using a variety of industry tools and technologies such as PyTorch, NumPy and Pandas packages, as well as theory surrounding the technical implementations of these systems such as backpropagation, convolutional neural networks, and deep learning.
- Attending the mentorship program to gain knowledge on relevant research, industry opportunities, and technical resources.

University of Toronto Rotman Commerce Innovation Group × Microsoft: Case Competition **Toronto, ON, CA**
Competitor Feb 2022 – March 2022

COMPLEXITYISINTELLIGENCE | MULTI LINGUAL PROGRAMMING PITCH

- Pitching a machine-intelligence-based software package built on a large language model (LLM), fine-tuned to easily enable multilingual coding with existing monolingual programming languages, with the goal of increasing coder diversity in Canada.

University of Toronto, Department of Mathematics **Toronto, ON, CA**
Exam Invigilator March 2023
- Supervising a voluntary challenge exam, hosted by the University of Toronto, catered towards pupils in high schools, to help accelerate their math education journey and encourage their earlier development of better mathematical reasoning.

PROJECTS

Analyzing Economic Trends: Non-Linear Models, State-Space Models and Neural Networks, Author

MUHAMMAD ALI HAFEEZ | ECONOMIC ANALYSIS IN MATHEMATICA

- Estimating future Gross Domestic Product values by developing and employing a non-linear model in Mathematica.
- Forecasting future GDP values through the development and utilization of state space models and time series models in Mathematica.
- Predicting GDP data values by training and utilizing neural networks in Mathematica.
- Comparing the predictive performance of non-linear models, state space models, and neural networks in economic data forecasting, while assessing their limitations.

Analysis of Cellular Proteomic Processes in R, Author

COMPLEXITYISINTELLIGENCE | ANALYSIS OF CELLULAR PROTEOMIC PROCESSES

- Using classification trees in R to analyze what transcription factors are most predictive of various cellular states.
- Using hypothesis testing in R to check if protein levels in experimental conditions change over time.
- Using correlation estimation tools in R to analyze the relationship between the presence of, and extent thereof, cancerous cells in coincidence with various amounts of different proteins.

CERTIFICATIONS

Gerstein+MADLab 3D Printing Certification

- Learning how to use a 3D printer, including setup, calibration, and preparing models for printing.
- Learning to prioritize safety by handling heated components with caution and taking necessary precautions.

SKILLS, PROGRAMMING LANGUAGES, ACTIVITIES & INTERESTS

Skills: Microsoft Excel, PowerPoint, Macros, PyTorch, NumPy, Pandas, TidyVerse
Programming Languages and Tools: Python, Java, R, Jupyter, LaTeX, Visual Studio Code, Power BI, HTML, CSS, Mathematica
Other Activities: World Para-Athletics Volunteer, ETC Investment Group × RiskLab Toronto Climate Risk Challenge
Interests: Machine Intelligence, Mathematical Modeling, Natural Language Processing, Econometrics, Data Visualization