# **Pratik Bhanuse**

E: pratikbhanuse2894@gmail.com | LinkedIn: https://www.linkedin.com/in/pratikbhanuse/ | personal webpage: https://pratikbhanuse.github.io/

#### **PROFESSIONAL SUMMARY AND SKILLS**

A dedicated and highly proficient quantitative finance and physics professional with a robust academic background in theoretical and computational physics. Demonstrates expertise in developing and optimizing asset allocation models, leveraging macroeconomic and fundamental data to deliver actionable insights. Extensive experience in quantitative research, financial risk analysis, systematic trading, and compliance, with a strong command of programming languages such as Python, C++, and SQL. Recognized for producing high-quality research outputs and client presentations, alongside a commitment to continuous improvement and client service in the financial sector.

#### **EDUCATION**

<b>Doctor of Philosophy (Ph.D.) Physics</b> , The University of Western Ontario, Canada. <i>Theoretical and Computational Physics</i>	Sept 2024 – Present
Master of Science (M.Sc.) Materials Physics, Brock University, Canada. GPA: 3.8/4.0 Project: Synthesis and characterization of ReMo and LSMO superconductors.	Aug 2019 – Dec 2020
Master of Science (M.Sc.) Theoretical Physics, The University of Nottingham, UK Thesis: "Coherent States in String theory" Recipient of "Developing Solutions Scholarship"	Sept 2015 – Dec 2016

Bachelor of Science (B.Sc.) Physics, University of Mumbai, India. July 2012 - May 2015 Recipient of "Certificate of Excellence" for conference on sustainable development from United Nations.

Computer Skills: Python, C++, C#, SQL, kdb+ and Q, APL, R, MATLAB, Shell script, Microsoft suite products -Word, Excel, Power-Point, Data analysis, Scikit-learn, Pandas, machine learning, dataframes, data structures, OOPs, API designing, pattern analysis.

Finance Skills: Algorithmic trading, arbitrage, risk analysis, model development and validation, portfolio management, investment analysis Loss Given Default (LGD) and Exposure at Default (EAD) Stress Testing models, Probability of Default (PD), statistical analysis, mathematical modelling, equity, derivatives, OTC market, capital market.

#### WORK EXPERIENCE

Quantitative Strategy Analyst, BCA Research, Montreal, CA

- Mar 2022 Present Experienced quantitative finance professional specializing in building asset allocation solutions using macro and fundamental data, collaborating with strategists.
- Skilled in analyzing and sanitizing large datasets for developing investment and systematic trading models. •
- Expertise in monitoring, evaluating, and enhancing the behavior of existing models while incorporating cutting-edge techniques in quantitative finance.
- Contributing to the production of original research publications linking macro themes to equity factor ٠ models, with a focus on high-quality visuals for publications and client presentations.
- Providing advanced support to clients accessing model signals through digital platforms, ensuring seamless user experiences, and delivering exceptional client service.

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#### Risk Analyst – AML/ATF and compliance, AML RightSource, Mississauga, CA Feb 2021 – Mar 2022

- Performed data analysis on financial transactions for potential financial crime patterns from various financial institution including banks, MSBs.
- Evaluated wire transfers, other payments and Currency Transaction Report (CTR) for potential fraud, money laundering, patterns and inconsistencies.
- Created/filed SARs reports as required by the Bank Secrecy Act based on client/account findings and Performed OFAC surveillance alerts.
- Made risk determination based on sanctioned alerts extracted from OFAC, Canadian and International list screening.

Quantitative Analyst, QTS Capital Management, LLC., Niagara, CA July 2020 – Feb 2021

- Assists with investment and data analysis on equity, ETFs, derivatives.
- Analyzing and developing mathematical and statistical modelling using Pandas data frames in python.
- Backtesting and auditing risk assessment on the models on Quantopian (python bases backtesting platform).
- Implementing machine learning (sci-kit learn module in python) on models.

#### Senior Lecturer, Smart 25, Mumbai India

- Teaching mathematics and physics.
- Engaging with parents and students to understand and deliver appropriate solution issues with studies.

**Research Analyst,** Indian Institute of Technology - Bombay (IIT-B), Mumbai India Feb 2017 – Aug 2017

- Data analysis using python on bio-analytical data to develop nanomaterials drug delivery systems to improve cancer treatment.
- Run simulations on Mathematica and python, use regression analysis and basic machine learning on python.
- Writing reports and delivering presentation on recent updates and development to various members of team and professor.

## LEADERSHIP INITIATIVES

**President**, *Phynance Association – Brock University*.

- Conduct events, workshops and lecture series on quantitative finance.
- Handle public relations, marketing and strategy planning for association.

### Graduate Student Association Representative, Space Evaluation Committee

- Evaluating requests and analyzing petitions for space allocation for faculties and students for appropriate usage.
- Researching on campus space availability for prospective renovation and expansion of divisions.

## CERTIFICATION

- Applied Data Science I: Scientific Computing & Python (with honors) WorldQuant University
- Bloomberg Market Concepts (BMC) Bloomberg LP

Jan 2020 – Dec 2020

Oct 2019 – Dec 2020

Aug 2018 – July 2019