Pratik Bhanuse

E: pratikbhanuse2894@gmail.com | LinkedIn: https://www.linkedin.com/in/pratikbhanuse/

personal webpage: https://pratikbhanuse.github.io/

PROFESSIONAL SUMMARY AND SKILLS

I am a quantitative finance professional with 3+ years of experience specializing in developing and implementing quantitative models, risk management strategies, and investment strategies. With a background in Theoretical Physics, I possess a strong understanding of advanced calculus, statistical analysis, and mathematical modeling. I have a proven track record of success in identifying profitable investment opportunities, mitigating risk, and working collaboratively with stakeholders. My proficiency in various programming languages and tools such as Python, C++, R, MATLAB, Linux, Docker, SQL, kdb+/q, and Shell scripting enables effective data analysis and modeling in quantitative finance.

EDUCATION

Doctor of Philosophy (Ph.D.) Physics, The University of Western Ontario, Canada. Sept 2024 – Present
Theoretical and Computational Physics

Master of Science (M.Sc.) Materials Physics, Brock University, Canada. Aug 2019 – Dec 2020
GPA: 3.8/4.0
Project: Synthesis and characterization of Rhenium-Molybdenum Oxide and Lanthanum Strontium Manganese Oxide superconductors.

Master of Science (M.Sc.) Theoretical Physics, The University of Nottingham, UK Sept 2015 – Dec 2016
Thesis: "Coherent States in String theory"
Recipient of "Developing Solutions Scholarship"

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+/q, APL, R, MATLAB, Shell script, Microsoft suit products - Word, Excel, Power-Point, Data analysis, Scikit-learn, Pandas, machine learning (basics), dataframes, data structures, OOPs, API designing, pattern analysis, neural network.

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 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.

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 internship, *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*   Aug 2018 – July 2019
- 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.*   Jan 2020 – Dec 2020
- 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*   Oct 2019 – Dec 2020
- 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