Rohith Krishna

Education

2019 - 21 PGDM in Research & Business Analytics, Madras School of Economics, CGPA - 9.16.
2017 - 19 Masters in Physics, DG Vaishnav College, University of Madras, CGPA - 9.10.
2014 - 17 Bachelors in Physics, RKM Vivekananda College, University of Madras, CGPA - 8.80.
March 2013 Senior Secondary, The Hindu Colony Chellammal Vidyalaya, Chennai, Score - 90.8%.

March 2011 Secondary, The Hindu Colony Chellammal Vidyalaya, Chennai, CGPA – 10.0.

Technical skills

Languages C, Python, SQL, SAS, HTML, Julia* Documentation IATEX, Markdown, MS Office Software Packages Stata, Tableau, Pyspark, Hive

Experience

- Feb 2022 American Express. Analyst-Product Development. Working on Regulatory models present for US Consumer Credit cards portfolio.
- Aug 2021 Epsilon Data Management, LLC. Data Analyst. R&D projects on development Jan 2022 of new marketing analytics products. Working on probabilistic models customer segmentation, attrition and lifetime value. NLP models to improve customer email engagement.

Internships

- Aug 2020 Dvara Research. Consultant. Extracting macroeconomic variables from household
 May 2021 data, using PCA, clustering algorithms: EM, K-means. Dashboarding panel data: 440
 variables & 300 million entries each per month with PySpark, SQL, AWS & Tableau.
 Automated Data Cleaning using STATA .do and pipeline creation for various data
 requirements. Study of income volatility using GARCH/Stochastic models.
- Apr 2020 Modeling Exchange Rate Volatility: Central Bank's response. Summer Intern at Jul 2020 Reserve Bank of India. Modeled the volatility of the Rupee in the foreign exchange market and studied the monetary response function under an inflation-targeting regime, using ARMA, GARCH and EGARCH time-series models.
- Oct 2018 Electronic structure and thermoelectric properties of intermetallics. *Masters* Mar 2019 *thesis at Anna University* Identified the intermetallic Yb₂Ge as a novel and viable thermoelectric. Performed DFT calculations using Quantum ESPRESSO by implementing both the LDA and GGA algorithms of the Kohn-Sham equation.
- Apr 2016 On the relation between agM, elliptic integrals & the time period of a pendulum.
 Jun 2016 Research Fellow at the Indian Academy of Sciences. Proved a method for computing the arithmetic-geometric mean (agM) of two numbers using Gauss' theorem on elliptic integrals.

Publications

Aug 2021 Household Savings & The Macroeconomy. On the question: Does macro-level variables co-move with micro-level economic variables? *Preprint available here.*

Projects

- Apr 2020 Patterns in US States in COVID-19 spread using K-Means and Hierarchical clustering. Investigated an exploratory analysis of US COVID-19 data by performing clustering of states through pandemic, health and economics factors.
- Mar 2020 **Determinants of Life Expectancy.** Analysis of country-level macroeconomics and health related data to determine life expectancy of an individual based on a linear regression model.
- May 2020 What motivates employees to gossip? An analysis of literature in organizational behaviour pertaining to gossip and its inferences for HR in workplace management.
- Sep 2019 **On WARP, consistency and motives in buying behaviour.** *Project at Madras School of Economics.* Studied motives underlying consumer behaviour, and the impact of poverty on consumer rationality. Conducted an experiment that tests consumer choices for consistency based on the Weak Axiom of Revealed Preference.
- May 2018 Modeling physical systems using the Dirac Delta Function. Intern a Madras University Solved the Laplace equation. Investigated some properties of the Dirac Delta function including its Fourier and Laplace transforms. Modelled impulse systems such as the hammer-blow response of a mass-spring system.
- Sep 2014 **Simulating nonlinear dynamics exhibited by the double pendulum.** Constructed a double pendulum and simulated its dynamics using Mathematica. Solved the underlying differential equations through numerical methods.
- May 2012 **Models using Chaotic maps.** *Research Intern at IIT Madras*. Studied chaotic maps such as the logistic map & Baker's map and linked them to biological population growth models. Explored the dynamics of physical systems using this analogy.

Achievements

- Class of 2021 Gold medallist for securing the 1st rank in the PGDM program at MSE.
- Class of 2019 Proficiency Prize at DG Vaishnav College for emerging as topper in Masters program.
- Class of 2017 Proficiency Prize at RKM Vivekananda College for emerging as topper in the Bachelors program.
 - 2014-15 NIUS Science Fellow at HBCSE, TIFR, Mumbai, for pursuing study and research of Quantum Mechanics, Astrophysics and Particle Physics.
 - 2012 Research Science Initiative fellow at IIT Madras for research in Non-linear Dynamics.
 - 2010-11 INSPIRE Award by the Department of Science and Technology, Govt. of India.

References

- Reference 1 Dr. Indradeep Ghosh, Executive Director, Dvara Research, mailto: Indradeep.Ghosh@dvara.com
- Reference 2 Dr. Rakesh Nigam, Principal (PGDM), Madras School of Economics, mailto: rakesh@mse.ac.in