Vishnu Unnikrishnan

First-Year Master's Candidate — Dept. of Statistics, Cochin University of Science and Technology.

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Personal Statement

Passionate about statistical modeling, machine learning, and data science, I apply analytical techniques to solve real-world problems. With a strong foundation in applied statistics and a drive for continuous learning, I seek opportunities to contribute to impactful projects, deepen my expertise, and build a career at the intersection of data science and innovation.

Education

Cochin University of Science and Technology, Kerala, India   **Jul. 2024 – Ongoing**
Master of Science, Statistics   *8.5+/10*

St. Thomas College (Autonomous), Kerala, India   **Sep. 2020 – July 2023**
Bachelor of Science, Mathematics (minors in Statistics and Computer Science)   *7.45/10*

Central Board of Secondary Education (CBSE), India   **2018 - 2020**
Grade 12th - Science (PCMB)   *88/100*

Central Board of Secondary Education (CBSE), India   **2010 - 2018**
Grade 10th   *93.6/100*

Experience

Basic Instructional School on Stochastic Processes (BISSP) - 2023   **June 2023 – July 2023**
National Institute of Science Education and Research (NISER)   *Bhubaneswar, India*

- An extensive program for selected final year undergrads covering topics from Probability theory, Measure free Stochastic Processes, Linear Algebra and Real Analysis along with research talks, all done by top researches in this field.
- Course Website - (Click here)

Research Intern (Letter of Recommendation attached here)   **Nov. 2022 – Jan. 2023**
Department of Economics and Statistics, State Govt. of Kerala, India.   *Dist. Collector's Office, Thrissur*

- Deployed statistical analysis and data modeling to work on a project titled, Predictive modelling of paddy production and yield in Thrissur District for the Winter season 2022-2023.
- Conducted comprehensive analysis of paddy yield data: Utilized secondary data to gather information on paddy yield from 2019 to 2022. Collected data included various factors such as paddy varieties, cultivation areas, and irrigation methods, which were organized and processed to calculate productivity values.
- Utilizing the time series models developed, projected the paddy yield for the year 2023. Delivered critical insights for the local government's agricultural planning and policy making.

Academic Project

Matrix Methods and Optimization in Machine Learning   **Feb. 2023**
- Under Prof. Ashbin Mathew, studied machine learning foundations of linear algebra, including matrix decompositions such as LU decomposition, QR factorization, Cholesky decomposition, and Singular Value Decomposition(SVD).
- Presented findings and gained a comprehensive understanding of optimization concepts in machine learning, including gradient descent, convex optimization, constrained optimization, and principal component analysis (PCA), as well as their applications in recommender systems, image recognition, and natural language processing.

Relevent Courseworks

NPTEL: Biological data analysis and visualization with R**, Time Series Modeling and Forecasting with Applications in R**, Predictive Analytics - Regression and Classification**, Data Analytics with Python**.
Coursera: Statistics with Python Specialization, Applied Data Science with Python, Machine Learning Specialization**.
MOOCs: CS50p, UC Berkeley Data 8, UC Berkeley Data 100**, ISLP**
Academic: Probability theory, Sampling Theory, Statistical Inference**, Stochastic Process**, Reliability Modelling and Analysis**, Real Analysis, Linear Algebra.

** refers to Ongoing

Positions of Responsibility/Leadership

IISA Annual Conference 2024 — Dec.2024
Student Volunteer — *CUSAT, Kochi*

- Attended the prestegious International India Statistical Association(IISA) Annual Conference 2024 as an student volunteer and attendee.
- Completed 2 Short term certificate course on Omics Data Science and Interpretable and Interactive Machine Learning
- Hosted the inaugural session as an anchor and attended multiple research presentations.

Debate and Oratory Club — Jun. 2022 - July. 2023
Secretary — *St. Thomas College (Autonomous), Thrissur*

* Organized two Intra-college debate and speech competitions, as well as multiple other events, which helped elevate the position of the club to a prominent and well-respected position within the college community.
* Moderated the District level Debate Competition for high school students, which was jointly organised by the Kerala State Excise Department and Vimukthi(Anti-narcotics) Mission.

School Head Boy — 2019 - 2020
Student Council — *Kendriya Vidyalaya, K.P.A, Thrissur*

Achievements

- Ranked 43rd for ISI PG.D. Statistical Methods and Analytics after clearing the written test and interview.Ranked 23rd in CUSAT CAT, 396 in IIT JAM MS.
- One among the 30 students selected all over from Indian to attend a Summer School on Stochastic Process organised by jointly by National Institute of Science Education and Research (NISER) and Indian Statistical Institute(ISI).

Skills

Technical Skills: Python, R, SQL Excel, LaTeX, SageMath, Power BI, Tableau
Soft Skills: Communication, Adaptivity, Teamwork, Problem-solving
Languages: English, Malayalam, Hindi, Sanskrit

Extracurricular

- First prize at All Kerala Maria Philip Memorial Debate Competition, organised by Xavier Institute of Management Entrepreneurship, Bangalore - for 3 consecutive years (2020,2021,2022).
- First prize at Zonal Level of National Youth Parliament organised by Ministry of Youth Affairs and Sports, GoI; for 2 consecutive years (2021, 2022)
- First prize at District Level of Declamation Competition 2021 organised by Ministry of Youth Affairs and Sports, GoI
- First Prize in Inter-College Business Quiz Competition organised by Christ College. *And many more.

Volunteer

Trek for a Cause, Athirapally Tribal Settlement Trail - Kites Foundation. Dec. 2022

Referee:

Dr. P G Sankaran
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Senior Prof. Department of Statistics,
Cochin University of Science and Technology(CUSAT), Kerala.

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