HARSHVARDHAN

Haslam College of Business, University of Tennessee, Knoxville
Email: harshvar@utk.edu ⋄ Website: **https://www.harsh17.in/** ⋄ Citizenship: India

EDUCATION

Haslam College of Business, University of Tennessee, Knoxville *Aug '21 – Present*
PhD in Analytics

Indian Institute of Management Indore *Jul '19 – Apr '21*
Master of Business Administration (MBA) 3.25/4.33 (top 15 percentile)

Latvijas Universitāte (University of Latvia), Latvia *Jan '19 – Jun '19*
International Exchange Semester (ERASMUS+ Scholar) 10.0/10.0 (with distinction)

Indian Institute of Management Indore *Aug '16 – Jun '19*
Bachelor of Arts (Foundations of Management) 3.30/4.33 (top 17 percentile)

INTERNSHIPS

Data Science Intern, HP Inc. *May '22 – Present*

Develop, enhance and deploy advanced analytics models in supply chains. Working on improving machine learning forecasting models for HP printers worldwide; First runner-up in HP's InternStellar Award (Technical Impact Category)

Research Intern under Prof Pritam Ranjan *May '18/19 – Jun '18/19*

Studied Gaussian correlation structures and Gaussian models to understand the impact of parameters and analysed algorithms to evade near-singularity

Tata Consultancy Services, Retail (**https://www.tcs.com/retail**) *May '20 – Jul '20*

Developed strong domain knowledge in the retail value chain, operations, technologies, modern point-of-sales and unified commerce; studied generic omnichannel strategies in depth

WORK EXPERIENCES

Aspect Ratio (Merck Global Centre) *April '21 – Jun '21*

Developed inferential and forecasting models for Merck vaccines in EU and US markets; initiated code automation efforts by operationalising the first-ever internal automated code writing R Shiny app

Asar for India (*pro bono*) *April '21 – Jun '21*

Created R Shiny app that produces a spreadsheet of population levels aggregated at district, state, or any other level for more than 200 countries. See **https://www.harsh17.in/shiny-urca/**

SELECTED PROJECTS

Academic Projects (Portfolio: **https://www.harsh17.in/project/**)

Joint Probability-based Dissimilarity Measure for Discrete Variables *May '22*

Proposed a probability-based distance measure for computing dissimilarity between observations with discrete features and compared its effectiveness with Gower's Distance

Replicating Tennessee STAR Project *Nov '21*

Measured impact of class sizes on learning outcomes using clustered regression with instrumental variables and class sizes as controls, replicating results from Krueger (1999)

Open-source (Github: `https://harsh17.in/github`)

garlic (`https://harshvardhaniimi.github.io/garlic/`) *Mar '22*

R package for standard utility functions for exploring data, manipulating variables and a new `ggplot2` theme.

IndiaPIN (`https://github.com/harshvardhaniimi/IndiaPIN`) *Jan '22*

R data package for geographic details for India's 19,300 PIN codes (ZIP codes)

RESEARCH WORKS

Peer-reviewed Book Chapters

Ranjan, P. and **Harshvardhan, M.** (2022). "The Evolution of Dynamic Gaussian Process Model with Applications to Malaria Vaccine Coverage Prediction". In D.D. Hanagal, R.V. Latpatel & G. Chandra (Eds.), *Applied Statistical Methods: ISGES 2020*. Springer. Singapore. [arXiv:2012.11124; Google Books]

Harshvardhan, M., & Ranjan, P. (2019). "Statistical Modelling and Analysis of the Computer-Simulated Datasets". In B. Gupta, & D. Agrawal (Eds.), *Handbook of Research on Cloud Computing and Big Data Applications in IoT* (pp. 202-228). Hershey, PA: IGI Global. doi:10.4018/978-1-5225-8407-0.ch011 [arXiv:2012.11122]

Peer-reviewed Case Study

Harshvardhan, M. and Kumar, B. (2021). "Invento Robotics: Launching Humanoid Robots". Case Study and Teaching Note. *Ivey Publishing*. [The Case Centre]

Manuscript

Harshvardhan, M. and Nilakantan, R. (2020) "Technical Efficiency of Indian Higher Education Institutes". *Manuscript under preparation.*

TALKS AND LECTURES

Guest lecture on "Introduction to R Markdown and GitHub" for MSBA class, University of Tennessee, 2022

Workshop on "Personal Website for Academics" at INFORMS — University of Tennessee Chapter, 2022

Invited talk "I Web. Therefore I Exist" on creating and controlling digital identity at R Users Trenton, 2022

Guest lecture on "Introduction to Shiny on RStudio" for FPM (PhD) students at IIM Indore, 2020

Tutorial on "Using LaTeX for Resume and Assignments" for undergraduate students at IIM Indore, 2018

Guest lecture on "Introduction to LaTeX" open for all IIM Indore participants, 2017

SCHOLARSHIPS AND GRANTS

Awarded InternStellar Award (Runner-up) at HP Inc. for best internship project with technical contribution

Awarded Business Analytics and Statistics Departmental Scholarship at University of Tennessee, 2021-22

Awarded ERASMUS+ grant by European Commission for exchange semester at University of Latvia, 2019

Awarded Ministry of Defence scholarship by Government of India at Sainik School Tilaiya, 2009–16

Awarded Government of Jharkhand scholarship at Sainik School Tilaiya, 2009–16

TEACHING

BZAN 542: Data Mining Methods for Business Applications, Teaching Assistant, Fall 2022. Primary Instructor: Prof Charles Liu.

BZAN 555: Supply Chain Analytics, Teaching Assistant, Fall 2021. Primary Instructor: Prof Sean Willems.

BA 341: Lean Operations, Teaching Assistant, Spring 2021. Primary Instructor: Prof Nana Bryan.

SERVICE ACTIVITIES

Treasurer, INFORMS - University of Tennessee Chapter, *Apr '22 – Present*: Responsible for coordinating with other core members and organising local chapter events

Coordinator, Corporate Involvement, IRIS '20, *Aug '19 – Mar '21*: Led a team of 10 members to engage and invite global leaders; coordinated with government agencies and stakeholders for sessions

Coordinator, Information Technology Club, *Mar '18 – Mar '19*: Organised 8+ tech events and international video-conference workshops; initiated a podcast on tech-economy

Volunteer, Data Science for Business Workshop, *April 2018*: Student volunteer of Data Science for Business Workshop with 10 CXOs and 750+ attendees at IIM Indore

EXTRACURRICULAR

Write a weekly newsletter *Next — Today I Learnt About R* on Data Science and R with 200+ subscribers

Hockey (Zonal Silver Medallist '13), Cultural - Mime and Music (Zonal Gold Medallist '14), Sainik Schools

Adventure Sports: Trekking (All India Gaya Trek Best Cadet), Sky Diving, Parasailing, Kayaking, Rafting

SOFTWARE SKILLS

Programming R, Python, SQL, C, C++

Data Analysis SPSS, STATA, Advanced Excel (VBA)

Writing LaTeX, HTML, CSS, YAML

Last updated: September 29, 2022