Harshitha Ravindra

www.linkedin.com/in/HarshithaRavindraData
https://github.com/HarshithaRavindra

Data visualisation engineer with core experience on data exploration and representation. Experience in developing visualisation dashboards, statistical models, producing reports, and improving the data collection and analysis process. Possess diverse experience in Real-World-Evidence studies, population survey analysis, banking sector, and academics.

Skills

Languages	R, R markdown, R Shiny, Python, Python notebook, d3.js, dc.js, HTML/CSS
Databases	MySQL, RDBMS, Hadoop, MongoDB
Tools	Tableau (Tableau+R), Anaconda, GeoDa, QGIS, Jupyter, Microsoft Excel, Microsoft PowerPoint, GIT, GitHub, R Connect
Quantitative methodologies	Data mining and data analysis, Regression analysis, Machine Learning techniques, Survival analysis, Engagement analysis
Soft skills	Motivate-Empower and Develop Team Members, Research and Process Improvement, Analytical thinker, Troubleshooting, R&D, Excellent Communication skills

Work Experience

APRIL 2020 – TO DATE
Data Visualisation Lead/ Vitaccess Ltd., Oxford, UK
Development of dashboard for RWE study registries, Report generation, Ad hoc analysis, time-series analysis, SAP development, and writing research papers.

AUGUST 2018 – TO DATE
Ph.D. Research Scholar/ International Institute of Information Technology, Bangalore, India
Development of visualisation dashboards using population health survey data. Experiments with different data modelling and machine learning techniques.

AUGUST 2018 – JULY 2019
Senior Research Fellow/ International Institute of Information Technology, Bangalore, India
Data exploration and development of visualisation dashboards using population health survey data using flask, python and d3.js scripts.

SEPTEMBER 2014 – JULY 2018

Assistant Professor/ BMS College of Engineering, Bangalore, India

Created open and interactive curricula along with teaching the courses - Java, Database, Big Data and Applications (MongoDB, Casandraa, Hadoop), C++ Programming, Python. And executed research projects which lead to project proposal submissions and paper publishing.

JULY 2012 – SEPTEMBER 2014

Software Engineer/ L & T Infotech (LTI), Bangalore, India

Worked on maintaining and updating existing compliance applications and plugging for a reputed global bank using Java and Actimize. Provided assistance and support to programming team members.

Education

Doctor of Philosophy / International Institute of Information Technology, Bangalore, India (Enrolled in 2018, currently pursuing).

Field of Study: Data science, Data visualization

Master of Technology / Visvesvaraya Technological University, CMR Institute of Technology, Bangalore, India

Field of Study: Computer Networks

Bachelors in Information Science and Engineering / Visvesvaraya Technological University, Reva University, Bangalore, India

Work Experience

APRIL 2020-TO DATE

Data Visualisation Lead/ Vitaccess Ltd.,Oxford, UK

Dashboard Development – R Shiny, R connect
- Kick started in-house dashboard development for implementation of RWE study data collected for use by clients
- Analysing and suggesting ways to improve the data algorithms
- Helping team members and the wider team to develop skills and understand the development, deployment, and testing the interactive dashboards produced using Shiny
- Use of Google firebase and AWS Athena to full the data into R shiny dashboards
- Used automated scheduled R Report to create up to date pins (R connect) from the LIVE data
- Research and development of innovative dashboard for business development
- Writing blogs, posters, research papers, and data nuggets as part of the job. Link to one of the blog here - https://www.linkedin.com/pulse/patients-melanoma-adverse-events-harshitha-ravindra/

Statistical Analysis
- Development of statistical analysis plan, data specification document, reports
- Use R software to develop *ad hoc* programming code to generate summary tables, data listings, graphs and derived datasets as specified in the statistical analysis plan and programming specifications.

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- Work to ensure that outputs meet quality standards and project requirements.
- Time-series analysis to predict the expected number of registration in our study.
- Generated complex engagement analysis report which was one of the key report for clients to make important process decisions throughout the project
- Performs validation programming and work with data scientist, biostatistician, statistician lead and other project team members to resolve discrepancies to assure quality of the report.
- Keeps project team members informed of programming progress and issues requiring their attention.
- Identify KPI's for project delivery and work towards process improvement to ensure Project deliverable is met in a timely manner.
- Motivate the team by continuous knowledge sharing and identifying key contributions.

AUGUST 2018 –TO DATE

Ph.D. Research Scholar/ International Institute of Information Technology, Bangalore, India

1. Co-existence of malnutrition in India with National Family Health Survey 2016-17.

    - Research in Data Modelling, Data Visualization, Social Science, Data Analytics, Machine Learning techniques
    - Researched the methods on spatial analysis and representation of data such as spatial auto correlation, Spatial lag and error models, Getis-Ord GI* function, Hot-spot analysis
    - Researched the methods on spatial analysis and representation of data such as spatial auto correlation, Spatial lag and error models, Getis-Ord GI* function, Hot-spot analysis
    - Used variety of specialized tools: QGIS, GeoDa, SPSS, spatstat (R package), Python
    - GITHUB link for a demo for part of the project: https://harshitharavindra.github.io/NFHS4/

AUGUST 2018 – JULY 2019

Senior Research Fellow/ International Institute of Information Technology, Bangalore, India

1. Demographic Visualization of Survey Data - *The tool was built for National Institute of Mental Health and Neurosciences (NIMHANS) to visualize their hospital and epidemic disease data.*
    - Worked on Data Modelling, Data Visualization, Social Science, Data Analytics, Machine learning techniques.
    - Used variety of specialized tools: Python, Flask, D3.js. DC.js, JavaScript
    - Responsible for product development and product improvement
    - GITHUB link for a demo for part of the project: https://harshitharavindra.github.io/DemographicVis/

2. SurveyVis Tool – *The tool was built to analyze and visualize survey data for a NGO's internal use.*
    - Worked on Data Modelling, Data Visualization, Social Science, Data Analytics, Machine learning techniques.
    - Used variety of specialized tools: Python, Flask, D3.js. DC.js, JavaScript, Tableau

- Responsible for product development and product improvement
- Performed data analysis for large survey data
- Researched the methods and different ways to handle and manipulate large data on a browser
- Worked as a team for product development and product improvement

SEPTEMBER 2014 – JULY 2018

Assistant Professor/ BMS College of Engineering, Bangalore, India

- Lecturing on courses of Java, Database, Big Data and Applications (MongoDB, Casandraa, Hadoop, Apache Spark, Neural Network), C++ Programming, Python
- Published papers in reputed journals and submitted project proposals for research
- Significantly enhancing the classroom learning environment and acting as a 'Facilitator' to promote student leadership in initiating and creating positive learning opportunities
- Proactively exploring and implementing innovative teaching techniques to accelerate the learning process among students
- Collaborating with fellow teachers on lesson plans and performing administrative tasks viz. recording attendance, managing student portfolios and providing individual assistance to students on academic and non-academic matters
- Organized department events like conferences and faculty training
- Conducted additional sessions for students on new technologies like Hadoop, One-shot learning using Deep learning
- Supervising UG students on internship research projects

JULY 2012 – SEPTEMBER 2014

Software Engineer / L & T Infotech (LTI), Bangalore, India

1. *Java Developer*
   - Developed servlet based application
   - Assisted in maintaining and updating existing applications and plugins
   - Created form validation programs using HTML and JavaScript
   - Contributed to the development of client-side and server-side codes for external and internal web applications
   - Provided assistance and support to programming team members

2. *Actimize Developer*
   - Assisted in troubleshooting, identification and documentation of root cause and resolution
   - Executed processes for troubleshooting and resolution of issues and technical defects
   - Supported technical team members in modification of workflows and application views in Actimize Designer

- Suggested modifications in queries in Actimize Designs to support impact of user interface views
- Maintained detailed technical documentation such as production run books and other support services
- Coordinated with technical teams for development and execution of unit testing plans including integration testing

Technical Paper Publication

- **H. Ravindra** and J. Sreevalsan-Nair, "Composition of Geospatial Visualizations for Scale-aware Views of Multiple Outcome Variables in Population Surveys," in Proceedings of the 26th International Conference on Information Visualization IV2022 - AIMH track - Visualization and Artificial Intelligence for Medicine, Healthcare, and Social Good, GraphicsLink, July 2022. DOI: 10.1109/IV56949.2022.00077 (accepted).
- Ofori, Akosua, **Harshitha Ravindra**, Katie Hall, Catherine Bottomley, Casey Quinn, Mark Larkin, and Maggie Heinrich. "Contextualizing qualitative analysis with quantitative data on the symptoms and side effects associated with melanoma treatment in the real world–the value of patient registries." In QUALITY OF LIFE RESEARCH, vol. 30, no. SUPPL 1, pp. S79-S80. VAN GODEWIJCKSTRAAT 30, 3311 GZ DORDRECHT, NETHERLANDS: SPRINGER, 2021.
- **Ravindra, H.** and Sreevalsan-Nair, J. (2021). Integrating Population Surveys using Spatial Visual Analytics: A Case Study on Nutrition and Health Indicators of Children under Five in India. In Proceedings of the 7th International Conference on Geographical Information Systems Theory, Applications and Management - GISTAM, ISBN 978-989-758-503-6; ISSN 2184-500X, pages 203-213. DOI: 10.5220/0010462102030213
- Kayarvizhy, N., K. Panimozhi, and **R. Harshitha**. "Internet of Things: A Project Based Engineering Course." 2017 5th IEEE International Conference on MOOCs, Innovation and Technology in Education (MITE). IEEE, 2017. DOI: 10.1109/MITE.2017.00021
- **Harshitha, R**., G. S. Rekha, and Guruprasad HS. "A survey on scheduling techniques in hadoop." (2015). DOI: 10.1.1.674.5857
- **Harshitha, R**., Imran A. Syed, and Sangeeta Srivasthava. "HCI using hand gesture recognition for digital sand model." 2013 IEEE Second International Conference on Image Information Processing (ICIIP-2013). IEEE, 2013. DOI: 10.1109/ICIIP.2013.6707633

Other Activities

- Mentoring young people, aged 11-19 years, to support and inspire to reach their full potential at a charity ASPIRE 2 Succeed, UK.

Achievements

- **Received recognition award** from Citi Olympia Project, L & T Infotech (LTI).
- Consistent positive track records in performance as faculty based on student feedback and supervisor annual review.

All the information provided in this resume is true to the best of my knowledge and belief.

Thanking you,   Harshitha Ravindra