

Haema Nilakanta

Resume

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Summary Statement

Experienced director level data science leader with foundational training in statistics and an expertise in statistical computing and applied statistical methodology. Strong leader, statistical programmer, presenter, individual and team contributor, and dedicated to diversity and inclusion within the larger data science field.

Education

- March 2020 **PhD, Statistics**, *University of Minnesota, Twin Cities*, Minneapolis, MN.
Advisor: Prof. Galin Jones.
Dissertation: *Output Analysis of Monte Carlo Methods with Applications to Networks and Functional Approximation*
- Feb 2018 **Master of Science, Statistics**, *University of Minnesota, Twin Cities*, Minneapolis, MN.
- 2012–2014 **Graduate coursework, Biostatistics**, *The George Washington University*, Washington D.C.
- May 2011 **Bachelor of Science, Magna Cum Laude, Mathematics**, *Iowa State University*, Ames, IA.

Selected Relevant Experience

- Present **Director of Data Science**, *Target Corporation, Minneapolis, MN*.
- Lead a team that produces models and algorithms that improve business planning and operations at scale for forecasting, assortment, and allocation processes
 - Manage and develop a high performing team of six data scientists
 - Successfully led several highly cross functional business critical projects yielding multi million dollars in savings in operational costs
 - Excellent communicator with technical expertise and keen partnership with product and engineering teams
- Oct 2022-24 **Principal Data Scientist**, *Target Corporation, Minneapolis, MN*.
- Technical leader in developing models and algorithms that improve business planning and operations
 - Mentorship of fellow data scientists
 - Develop, deploy, and maintain production based systems
 - Principal Data Scientist on the Demand Forecasting Engine:
 - Leader on larger team that provides unit demand forecasts as inputs to supply chain and planning initiatives
 - Focus area on disaggregation and anomaly detection methods
 - Strong cross-team collaboration with engineering partners
 - Established framework with traceable results and measurement pipelines
 - POC GenAI chatbot to help inventory analysts identify key dashboards to aid in RCA
 - Principal Data Scientist on the Pricing and Promotions Insights:
 - Leader of team that oversaw pricing and merchandising models at Target
 - Developed a novel scorecard approach to evaluate price recommendations
 - Advised on building a scalable promotions-forecasting application
 - Weekly check ins and updates with business stakeholders
- Oct 2019-22 **Lead Data/AI Scientist**, *Target Corporation, Minneapolis, MN*.
- Worked with Target Tech Data Science Personalization Deals team to drive deal-based recommendations at scale
 - Senior member and contributor, maintained and upgraded production workflows, code reviews, and innovation
 - Reliable onboarding and technical mentor
 - Developed, deployed, and managed recommendation systems and prediction-based models
 - Collaborated and coordinated with other Target teams (e.g., promotions, pricing, Circle, etc.)
- 2019-2018 **Graduate Instructor**, *University of Minnesota, Minneapolis, MN*.
- Spring 2019 STAT 3032-001: Regression and Correlated Data
 - Fall 2018 STAT 3011-017: Introduction to Statistical Analysis

	<ul style="list-style-type: none"> ○ Fall 2018 STAT 3701: Introduction to Statistical Computing (covered initial 6 weeks)
Summer 2018	Data Science Graduate Intern, Target Corporation, Minneapolis, MN. <ul style="list-style-type: none"> ○ 10 week internship with EDABI data science team ○ Worked on an image processing and trend detection project (Python, R, Hive)
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	<h2>Skills</h2>
Programming	R, Python, Spark (Pyspark and SparkR), SAS, Hadoop, Hive, Oozie, SQL, Shell, XML
Statistical and Machine Learning methods	Regression, General Linear Models, General Additive Models, Mixed Methods, Hierarchical Modeling, Bayesian Modeling, Regularization, Time Series, Survival Analysis, Experimental Design (A/B testing), Parametric and Non-parametric Methods, Cross Validation, Classification, NLP, Decision Trees, Random Forests, Boosting & Bagging Methods, Neural Networks, Recommender Systems, Simulation-based Approaches
OS	Mac, Windows, Linux
Other Tools	Git, Github Copilot, ChatGPT, LaTeX, Microsoft Office, Keynote, Pages
Other	Confident public speaker, strong communication skills, adaptable

Selected Relevant Publications

- Nilakanta, H.,** and Jones, G.L., Research Methods Foundation Project: Monte Carlo Simulation, SAGE Research Methods Foundations, edited by P. Atkinson, et al. (2020).
- Nilakanta, H.,** Output Analysis Of Monte Carlo Methods With Applications To Networks And Functional Approximation, University of Minnesota Digital Conservancy (2020).
- Nilakanta, H., Almquist, Z.W.,** and Jones, G.L., Ensuring Reliable Monte Carlo Estimates of Network Properties, (2019) ArXiv.

Selected Awards and Honors

Awarded by Target Corporation

- July 2024 All Team Meeting Recognition for DS Supply Chain, Operations, DFE, and GenAI org
- Oct 2023 SPOT Award – recognition for individual performance on a team
- Sep 2023 Invited to attend 2023 Grace Hopper Conference
- Jun 2022 Nominated by leadership to attend Target Tech Storytelling Training for leaders

Awarded by University of Minnesota

- Spring 2019 Bernard W. Lindgren Graduate Instructor Award, School of Statistics
- Spring 2018 Director's Award, School of Statistics
- 2017-2018 Graduate School Interdisciplinary Doctoral Fellowship
- May 2017 Social Networks and Health Fellowship, via Duke University
- Summer 2016 Lynn Lin Fellowship in Statistics, for promise in statistical consulting
- Summer 2015 First Year Graduate Research Fellowship

Service

Target Corporation

- 2023-Present US Chair of Small Moments Workstream for Target Women in Data Science, *Target Tech*.
- 2020-Present Member of the Data And Inclusion (DAC) Group, *Target Data Sciences*.
- Aug 2021 Panelist for AI Event at Grace Hopper Conference, *Target Tech*.
- Dec 2020 Data Science 4 All Mentor, *Target Data Sciences with Correlation 1*.

Minneapolis Public Schools

- 2017-2023 Volunteer Math GED Tutor, *MPS Adult Education*.

Select Affiliations and Memberships

- American Statistical Association (ASA), ASA Caucus for Women in Statistics (ASA CWS), Statistics Without Borders (SWB)