

Haema Nilakanta

Resume

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Summary Statement

Experienced data scientist 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.

Skills

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
Operating Systems	Mac, Windows, Linux
Other Tools	Git, LaTeX, Microsoft Office, Keynote, Pages
Other	Confident public speaker, strong communication skills, adaptable

Education

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

Relevant Experience

Present	Principal Data Scientist , <i>Target Corporation, Minneapolis, MN.</i> <ul style="list-style-type: none">Working on Target Tech Data Science Demand Forecasting Engine and Pricing and Promotions InsightsDirector-level individual contributor and technical leader in developing models and algorithms that improve business planning and operationsMentorship of fellow junior data scientistsLeader in building and designing data systems to work at scale for a Fortune 50 companyCollaboration and coordination with other Target teams
Oct 2019-22	Lead Data/AI Scientist , <i>Target Corporation, Minneapolis, MN.</i> <ul style="list-style-type: none">Worked with Target Tech Data Science Personalization Deals team to drive deal-based recommendations at scaleSenior member and contributor, maintained and upgraded production workflows, code reviews, and innovationReliable onboarding and technical mentorDeveloped, deployed, and managed recommendation systems and prediction-based modelsCollaborated and coordinated with other Target teams (e.g., promotions, pricing, Circle, etc.)Key Projects (used Hive, Python, Pyspark, SparkR, Shell, Oozie):<ol style="list-style-type: none">Generalized fallback: Led development of a productionized daily-run algorithm from scratch to generate non-personalized ranking of all offer types at Target (GLMs, seasonality, random forest)Personalized recommendations of price based offers: Led development of a productionized daily-run algorithm from scratch to generate personalized recommendations of price based offers to all identifiable guests (xgboost)Eligible Items: Collaborated on a real-time recommendation service to rerank items within an offer for guest relevancy (under patent review; word2vec, cosine similarity)

- 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
 - Fall 2018 STAT 3701: Introduction to Statistical Computing (covered initial 6 weeks)

- Summer 2018 **Data Science Graduate Intern**, *Target Corporation, Minneapolis, MN.*
- 10 week internship with EDABI data science team
 - Worked on an image processing and trend detection project (Python, R, Hive)

- Summer 2017 **Graduate Intern**, *Savvysherpa Inc., Minneapolis, MN.*
- 12 week internship at a health care analytics company
 - Worked with a small team on two projects: 1. New health care member dynamic dis-enrollment prediction (R, survival analysis) and 2. FL Medicare patient-provider network analysis (R, network analysis)

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

- 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
- Sep 2022 Invited to represent company at 2022 Grace Hopper Conference
- Aug 2021 Invited to attend 2021 Grace Hopper Conference
- Sep 2021 AI All team meeting recognition
- Aug 2020 SPOT Award – recognition for individual performance on a team

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

Minneapolis Public Schools

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

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*.

Select Affiliations and Memberships

- American Statistical Association (ASA)
- ASA Caucus for Women in Statistics (ASA CWS)
- Statistics Without Borders (SWB)
- R-Ladies Twin Cities Chapter