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 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**, *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.

Relevant Experience

Present **Lead Data/AI Scientist**, *Target Corporation, Minneapolis, MN*.

- Working with Target Tech Data Science Personalization Deals team to drive deal-based recommendations at scale
- Senior member and contributor in maintaining and upgrading production workflows, code reviews, and innovation work
- Reliable onboarding and technical mentor for new Deals team members
- Developing, deploying, and managing recommendation systems and prediction-based models
- Collaboration and coordination with other Target teams (e.g., promotions, pricing, Circle, etc.)
- Key Projects (used Hive, Python, Pyspark, SparkR, Shell, Oozie):

1. 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)
2. 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)
3. 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
- Project 1: New health care member dynamic dis-enrollment prediction (R, survival analysis)
- Project 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

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

Target Corporation

Aug 2021 Panelist for AI Event at Grace Hopper Conference, *Target Tech*.
2020-Present Member of the Data And Inclusion (DAC) Group, *Target Data Sciences*.
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)
- R-Ladies Twin Cities Chapter