

Vinod Raman

vkraman@umich.edu

<https://vinodkraman.github.io>

Education

University of Michigan

PhD Student in Statistics

Thesis Advisor: Ambuj Tewari

Ann Arbor, MI

2021 - Present

University of Michigan

BSE Computer Science, BSE Chemical Engineering

Thesis Advisors: Mahdi Cheraghchi, Andrej Lenert, Sindhu Kutty

Ann Arbor, MI

2015 - 2020

Industry Experience

Amazon

Software Engineering Intern

Seattle, WA

May 2021

- Used React to design a mobile user dashboard for the Alexa Fashion team

Wove

Software Engineering Intern

San Francisco, CA

May - Aug. 2019

- Deployed bot-detection mechanism in Java and Ruby to improve the robustness of customer interaction data against web crawlers
- Engineered and deployed Beta distribution priors for estimating click-to-conversion rates of new ad-placements in Java
- Implemented contextual bandit algorithms for improving click-through-rate and helped design an off-policy bandit evaluation framework in Python

Vertex Pharmaceuticals

Data Intern

Boston, MA

May - Aug. 2018

- Built a standalone Matlab GUI automating the extraction, cleaning, visualization, and process control trending of raw continuous manufacturing data from Excel and OSIsoft PI databases
- Achieved a 92% reduction in labor hours in production

Research Experience

Graduate Student Researcher

Advisor: Prof. Ambuj Tewari

Ann Arbor, MI

Aug. 2021 - Present

- Online Learning with Partial/Set-valued Feedback
- Multioutput Learnability
- Adversarially Robust PAC Learning
- Online Boosting

Undergraduate Student Researcher

Advisors: Ambuj Tewari, Mahdi Cheraghchi, Sindhu Kutty, Andrej Lenert

Ann Arbor, MI

May 2017 - Aug. 2020

- Online Boosting
- Submodular Maximization
- Multi-armed Bandits
- Thermophotovoltaics

Awards, Scholarships & Honors

NeurIPS 2022 Scholar Award	2022
Outstanding First-Year Ph.D. Student (University of Michigan)	2022
Departmental Outstanding GSI Team Award (University of Michigan)	2022
NSF Graduate Research Fellowship	2022
First-year Rackham Fellowship (University of Michigan)	2021
American Statistical Association Best Poster Award (University of Michigan)	2020
Landes Prize in Technical Communication (University of Michigan)	2019
Future Leaders In Chemical Engineering	2018
Bandemer Scholarship (University of Michigan)	2018
Pursley Scholarship (University of Michigan)	2017
A.H. White Scholarship (University of Michigan)	2017
James B. Angell Scholar (University of Michigan)	2017-2019
Dean's List (University of Michigan)	2015-2020

Software

- **Programming:** Python, C++, Java, Javascript, Matlab, React Native
- **Frameworks:** PyTorch, Tensorflow, DialogFlow, MapReduce, Hadoop, Mockito