#### NSF BIOGRAPHICAL SKETCH

Provide the following information for the Senior personnel. Follow this format for each person. **DO NOT EXCEED 3 PAGES.** 

# **IDENTIFYING INFORMATION:**

NAME: Khanna, Rajiv

ORCID: 0000-0003-1314-3126

POSITION TITLE: Assistant Professor

ORGANIZATION AND LOCATION: Purdue University

### **Professional Preparation:**

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ORGANIZATION AND LOCATION	DEGREE	DATE	FIELD OF STUDY
	(if applicable)	RECEIVED	
University of Texas at Austin, Austin, Texas,	PHD	2018	Electrical and
USA			Computer Engineering
Indian Institute of Technology, Mumbai,	МОТН	2008	Computer Science and
Maharashtra, India			Engineering
National Institute of Technology, Jalandhar,	ВОТН	2006	Computer Science and
Punjab, India			Engineering

## **Appointments and Positions**

Assistant Professor, Purdue University, Department of Computer Science
Visiting Researcher, Google Research
Postdoctoral Researcher, University of California at Berkeley, Department of
Statistics
Research Fellow, University of California at Berkeley, Simons Institute for Theory of
Computating
Research Engineer, Yahoo! Labs

#### **Products**

### Products Most Closely Related to the Proposed Project

- 1. Gupta Vipul, Ghosh Avishek, Derezinski Michal, Khanna Rajiv, Ramchandran Kannan, Mahoney Michael. LocalNewton: Reducing communication bottleneck for distributed learning. arXiv preprint arXiv:2105.07320. 2021.
- 2. Zhang Jacky, Khanna Rajiv, Kyrillidis Anastasios, Koyejo Sanmi. Bayesian coresets: Revisiting the nonconvex optimization perspective. International Conference on Artificial Intelligence and Statistics; 2021; c2021.
- 3. Khanna Rajiv, Kim Been, Ghosh Joydeep, Koyejo Sanmi. Interpreting black box predictions using fisher kernels. The 22nd International Conference on Artificial Intelligence and Statistics; 2019; c2019.
- 4. Guha Shovik, Khanna Rajiv, Koyejo Oluwasanmi O. Distribution Preserving Bayesian Coresets

- using Set Constraints. NeurIPS 2021 Workshop on Distribution Shifts: Connecting Methods and Applications; 2021; c2021.
- 5. Khanna Rajiv, Elenberg Ethan, Dimakis Alex, Negahban Sahand, Ghosh Joydeep. Scalable greedy feature selection via weak submodularity. Artificial Intelligence and Statistics; 2017; c2017.

# Other Significant Products, Whether or Not Related to the Proposed Project

- 1. Derezinski Michal, Khanna Rajiv, Mahoney Michael W. Improved guarantees and a multiple-descent curve for Column Subset Selection and the Nystrom method. Advances in Neural Information Processing Systems. 2020; 33:4953--4964.
- 2. Khanna Rajiv, Hodgkinson Liam, Mahoney Michael W. Geometric Rates of Convergence for Kernel-based Sampling Algorithms. arXiv e-prints. 2019; :arXiv--1907.
- 3. Quinzan Francesco, Khanna Rajiv, Hershcovitch Moshik, Cohen Sarel, Waddington Daniel G, Friedrich Tobias, Mahoney Michael W. Fast Feature Selection with Fairness Constraints. arXiv preprint arXiv:2202.13718. 2022.
- 4. Utrera Francisco, Kravitz Evan, Erichson N Benjamin, Khanna Rajiv, Mahoney Michael W. Adversarially-Trained Deep Nets Transfer Better: Illustration on Image Classification. arXiv preprint arXiv:2007.05869. 2020.
- 5. Elenberg Ethan R, Khanna Rajiv, Dimakis Alexandros G, Negahban Sahand. Restricted strong convexity implies weak submodularity. The Annals of Statistics. 2018; 46(6B):3539--3568.

## **Synergistic Activities**

#### **Certification:**

When the individual signs the certification on behalf of themselves, they are certifying that the information is current, accurate, and complete. This includes, but is not limited to, information related to domestic and foreign appointments and positions. Misrepresentations and/or omissions may be subject to prosecution and liability pursuant to, but not limited to, 18 U.S.C. §§ 287, 1001, 1031 and 31 U.S.C. §§ 3729-3733 and 3802.

Certified by Khanna, Rajiv in SciENcv on 2023-04-09 09:57:49