# Kartik Sreenivasan

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#### **EDUCATION**

#### UNIVERSITY OF WISCONSIN-MADISON

PHD IN COMPUTER SCIENCE (Advised by Prof. Dimitris Papailiopoulos) CGPA: 3.96/4 Aug 2018 - Current | Madison, WI

## NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA

B.TECH IN INFORMATION TECHNOLOGY 2011 - 2015| Karnataka, India CGPA: 9.89 / 10.0 | Rank: 1/800

#### HONORS

- Aug. 2018 | **UW-Madison Special CS** Scholarship (\$6000)
- Nov. 2015 | Institute Gold Medal Information Technology
- $\bullet$  Apr. 2015 | Teekays Award for the Best Outgoing Student
- Apr. 2015 | Smt. Umadevi Channabasappa Memorial Prize for securing highest CGPA from I to VII semester
- Aug. 2013 | **Dr. Rishipal Singh Memorial Prize** for being the Best Student of I year of the Institute

#### COURSES

- [MA/CS726, 730] **Nonlinear Optimization I, II**
- [MA/CS728] Integer Optimization
- [MA/CS525] **Linear Programming**
- [MA 833] Modern Discrete Probability
- [CS880] Advanced Learning Theory
- [CS787] **Advanced Algorithms**
- [CS761] Mathematical Machine Learning
- [ECE901] Theoretical Results in Machine Learning

#### PATENTS

- US20160196563: Method to expand seed keywords into a relevant social query.
- US20160196354: Method to modify existing query based on Relevance Feedback from Tweets.

#### RESEARCH

# CORNELL, MARYLAND, MAX PLANCK PRE-DOCTORAL RESEARCH SCHOOL | ATTENDEE

Summer 2019 | Max Planck Institute, Saarbrucken, Germany

## XVI SUMMER SCHOOL IN DISCRETE MATHEMATICS | ATTENDEE January 2021 | Universidad De Chile (Virtual)

#### STOCHASTIC SYSTEMS LABORATORY | PROJECT ASSISTANT

Aug 2017 - March 2018 | Indian Institute of Science

• Worked with **Prof. Shalabh Bhatnagar** to build a *multi-agent deep reinforcement learning* algorithm to perform efficient vehicular traffic control using *Tensorflow* and *SUMO* (road traffic simulation package).

#### TEACHING

#### **UNIVERSITY OF WISCONSIN-MADISON** | TEACHING ASSISTANT

- Fall 2018 | MA/CS 240 Intro to Discrete Mathematics
- Spring 2019 | MA/CS 435 Intro to Cryptography
- Fall 2019 | CS 577 Intro to Algorithms
- Spring 2020 | MA/CS 513 Numerical Linear Algebra

#### **EXPERIENCE**

# **SAMSUNG ADVANCED COMPUTING LAB** | RESEARCH INTERN Summer 2019 | San Jose, California

• Designed a Machine Learning Framework to help streamline hardware development by optimizing the simulation and emulation parameters.

# **ADOBE SYSTEMS** | MEDIA OPTIMIZER - ALGORITHMS TEAM Aug 2016 - July 2018 | Bangalore, India

- Designed a Model Testing Framework from the ground up.
- Built a click/cost model using **XGBoost**. **Improved RMSE by over 20%** from the existing model.
- Worked closely with clients and account managers to setup and run head to head tests against competitors such as *Google* and *Kenshoo*.

#### **ADOBE SYSTEMS** | DATA SCIENCE AND ADVANCED PROJECTS Jun 2015 – Aug 2016 | Bangalore, India

Built a Proof of Concept (POC) to use *NLP* in ad modeling by leveraging *Spark*,
Azure and *Mllib*. The POC was also used by management to determine the
feasibility of using *Azure-ML* across Adobe.

#### **ADOBE RESEARCH LABS | RESEARCH INTERN**

Summer 2014 | Bangalore, India

• Developed an algorithm to generate a query to extract relevant Twitter posts given the input topic (social querying).

#### **PUBLICATIONS**

• Attack of the Tails: Yes, You Really Can Backdoor Federated Learning, (NeurIPS'20)