

Sachin Konan

sachinkonan480@gmail.com | New York, NY

EDUCATION

Bachelor of Science, Georgia Institute of Technology 2018 - 2022
Computer Science; Threads in Theory and Artificial Intelligence
Research Advisor: Matthew Gombolay

AWARDS

NSF Graduate Research Fellowship (Declined to pursue full-time work) 2022

PURA Undergraduate Research Fellowship 2021

NBA National Hackathon (Top 10 in the US) 2021

Davidson Fellow 2018

Finalist, Regeneron Science Talent Search 2018

2nd In Embedded Systems at Intel International Science and Engineering Fair 2017

PUBLICATIONS

4. **Sachin Konan**, Larry Rudolph, Scott Affens. "Automating the Generation of Functional Semantic Types with Foundational Models." *Accepted into Industry Track at NAACL 2024*.
3. **Sachin Konan**, Larry Rudolph. "Merge-Split: Directed Graph Perturbations that Preserve Random Walk Structure." *In Review for VLDB, 2024*.
2. **Sachin Konan**, Esmail Seraj, and Matthew Gombolay. "Contrastive Decision Transformers." *Conference on Robot Learning. PMLR, 2023*.
1. **Sachin Konan**, Esmail Seraj, and Matthew Gombolay. "Iterated reasoning with mutual information in cooperative and byzantine decentralized teaming." *ICLR, 2022*.

PREPRINT/ARTICLES

2. Scott Affens, **Sachin Konan**, Geoff Cross, Larry Rudolph. "Semantic Types: From Computer-Centric to Human-Centric Data Types." *Two Sigma Research Archive, 2023*.
1. **Sachin Konan**, Kevin J. Liang, and Li Yin. "Extending one-stage detection with open-world proposals." *arXiv preprint arXiv:2201.02302 (2022)*.

WORK EXPERIENCE

Two Sigma - Metadata Fall 2022 -
Now
Graph Perturbation Research, Graph Analysis, Data Discovery Engineering

Meta - Fundamental AI Research (FAIR) Fall 2021
Open World Detection for Fully Convolutional One-Stage Detection

Two Sigma - Research and Methodologies Lab Summer 2021
Differential Privacy on Graphs and Permission Modeling

Georgia Institute of Technology - Teaching Assistant (class taught by Constantinos Dovrolis) Fall 2021/2022
Head Grader for CS 3510: Design and Analysis of Algorithms

Intel - Deep Learning Group Summer 2019
Improved runtime of ArchBench (DNN hardware simulator) from 2 hrs to 4 mins

SELECTED COURSEWORK

Machine Learning CS 4641: Machine Learning, CS 4803: Deep Learning, CS 4476: Computer Vision, CS 3630: Perception and Robotics, CS 3600: Intro To Artificial Intelligence

Computer Science CS 4540: Advanced Algorithms, CS 4510: Automata and CS 3510: Design and Analysis of Algorithms, CS 1302: Data Structures & Algorithms

Mathematics Math 3406: Advanced Lineage Algebra, MATH 4032: Combinatorial Analysis, ISYE 3770: Statistics, Math 2550: Into To MultiVariable Calculus

PROJECTS/CONSULTING

Falcon 7B Consciousness Summer 2023
Parameter Efficient FineTuning of Falcon-7B LLM on Message Data

Boat Detection – Consultant for AR Inspect Spring 2023
Real-Time Boat Identification and Metadata Extraction using CNN's

Accelerometer Dashboard - Consultant for GT Womens Volleyball Team Fall 2019
Impact Visualization/Collection/Analysis of Volleyball Players throughout season

SKILLS

Programming: Python (Numpy, Pandas, Pytorch, OpenCV, Matplotlib), C++, Javascript

Languages: English (Native), Spanish (Basic), Kannada (Basic)