

Aarshvi Gajjar – CV

aarshvi@nyu.edu
Website : <https://aarshvig.github.io/>

EDUCATION

New York University, Tandon School of Engineering

Ph.D. Computer Science (Advisors: Christopher Musco and Chinmay Hegde) - 3.89/4.0

New York City, NY

Fall 2021 - Present

- Supported by the NYU Ph.D. Future Leader Fellowship, 2021-23.

University of Massachusetts Amherst

M.S. Computer Science (Advisor: Cameron Musco) - 3.93/4.0

Amherst, MA

Aug 2019 - May 2021

International Institute of Information Technology (IIIT-H), Hyderabad

B.Tech. Electronics and Communication Engineering

Hyderabad, IN

Jul 2012 - May 2016

RESEARCH INTERESTS

Random Sketching, Dimensionality Reduction, Active Learning, High Dimensional Statistics

RESEARCH

Active Learning for Single Neuron Models with Lipschitz Non-Linearities.

with Christopher Musco and Chinmay Hegde

In submission, 2022

Subspace Embeddings under Nonlinear Transformations.

with Cameron Musco.

Algorithmic Learning Theory (ALT) 2021

COURSES

- **Mathematics and Statistics.** Real Analysis II (Measure Theory) MATH-GA.1420, Information Theoretic Methods in Statistics MATH-GA.2840, Real Analysis I MATH-GA.1410, Mathematical Statistics DS-GA 3001, Financial Securities and Markets*, Statistical Inference STAT608.
- **Computer Science.** Honors Analysis of Algorithms* CSCI-GA-3520, Reinforcement Learning CS687, Machine Learning CS689, Probabilistic Graphical Models CS688, Algorithms for Data Science CS514.

TEACHING EXPERIENCE

Course Assistant

NYU

Algorithmic Machine Learning and Data Science

Fall 2021, Spring and Fall 2022

Grader

UMass, Amherst

Applied Cryptography - CS466, Machine Learning - CS689

Spring 2021 and Fall 2020

INDUSTRY EXPERIENCE

1. Amazon Research & Development

Applied Science Intern, Alexa NLU — Transfer Learning, Slot Tagging

Aachen, Germany

Jun 2020 - Aug 2020

A Machine Translation Re Ranker for Bootstrapping

Supervisors: Dr. Abujabal Abdalghani and Dr. Claudio Delli Bovi

- Investigation of N-Best list generated by general purpose Machine Translation Model for bootstrapping Alexa NLU model on low resource languages.
- Proposed a re ranker model to resurface translations similar to live data in target language for Alexa NLU. This model is based on XLMRoberta.

2. Goldman Sachs

Senior Quant Analyst, Surveillance Analytics Group — Distributed Systems, Streaming Algorithms

Bangalore, IN

Aug 2017 - Jun 2019

Document Scoring Engine

Supervisor: Dr. Mayur Thakur, Managing Director, Goldman Sachs

- Designed and implemented the Document Scoring System for **Neon**, Goldman's search engine.

- Designed and implemented scoring mechanisms for query independent scores, index zone scores and query parser scores for **1TB** data ingested daily.

Alerting and Monitoring System

- Implemented ARIMA, Hodrick Prescott Filter based models to predict flow of Email data in a streaming pipeline for building surveillance models.

Document Similarity Scoring

- Implemented distributed *Simhash* for clustering near duplicate documents from streaming data.

3. WalmartLabs

Software Development Engineer, Retail Technology

Bangalore, IN

August 2016 - August 2017

4. Tonbo Imaging

Machine Learning Intern — Computer Vision

Bangalore, IN

Summer 2015

- Built a Toll Collection model for vehicle categorisation on real time videofeed.

TECHNOLOGIES

PyTorch, Eigen, Huggingface, HADOOP, HDFS, Apache Flink, Python, Java, C++

OTHER

- Judge for Math projects at Terra NYC STEM Fair
- Awarded the Grace Hopper Student Scholarship, 2020
- EMEA Rank of 96 among over 8000 participants in the Google Asia Pacific Coding Contest in 2015
- 99.99 percentile in the All India Engineering Entrance Examination (AIEEE) among 1,200,000 participants, 2012