Aarshvi Gajjar – CV

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Education

New York University, Tandon School of Engineering — New York City, NY
Ph.D. Computer Science (Advisors: Christopher Musco and Chinmay Hegde) - 3.89/4.0 — *Fall 2021 - Present*

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

University of Massachusetts Amherst — Amherst, MA
M.S. Computer Science (Advisor: Cameron Musco) - 3.925/4.0 — *Aug 2019 - May 2021*

International Institute of Information Technology (IIIT-H), Hyderabad — Hyderabad, IN
B.Tech. Electronics and Communication Engineering - 7.6/10 — *Jul 2012 - May 2016*

Research Interests

Randomized Algorithms, Dimensionality Reduction, Active Learning

Publications

Subspace Embeddings under Nonlinear Transformations. Aarshvi Gajjar and Cameron Musco.
Algorithmic Learning Theory (ALT) 2021

Courses

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, Reinforcement Learning CS687, Machine Learning CS689, Probabilistic Graphical Models CS688, Statistical Inference STAT608, Algorithms for Data Science CS514

Teaching Experience

Course Assistant — Algorithmic Machine Learning and Data Science
NYU Tandon School of Engineering — *Fall, 2021 and Spring, 2022*

Grader — Applied Cryptography - CS466
University of Massachusetts, Amherst — *Spring, 2021*

Grader — Machine Learning - CS689
University of Massachusetts, Amherst — *Fall, 2020*

Work Experience

1. Amazon Research & Development — Aachen, Germany
Applied Science Intern, Alexa NLU — Transfer Learning, Slot Tagging — *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.

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2. Goldman Sachs — Bangalore, IN
Senior Quant Analyst, Surveillance Analytics Group — Distributed Systems, Streaming Algorithms — *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.

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3. WalmartLabs Bangalore, IN

Software Development Engineer, Next Generation Pricing *August 2016 - August 2017*

- Developed functionalities for NGP-Markdown to generate strategies for price markdown of 8 million Walmart items using Java, Cassandra.

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4. Tonbo Imaging Bangalore, IN

Machine Learning Intern — Computer Vision *Summer 2015*

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

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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