# Sachin Shastri

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### **Education**

New York University, Manhattan, New York, USA

Aug 2017 - May 2019

Master of Science, Computer Science, Cum. GPA: 3.74 / 4.00

Courses: Distributed Systems, Predictive Analytics, Foundations of Machine Learning, Deep Learning, Natural Language Understanding, Computer Vision, Statistical NLP, Mathematics of Deep Learning, Fundamental Algorithms, Programming Languages, Operating Systems,

## PES Institute of technology, Bangalore, India

Jun 2012 - Aug 2016

Bachelor of Engineering, Computer Science

Cum. GPA: 9.04 / 10.0 - First class with Distinction (All Semesters)

Advanced courses: Big Data, Advanced C++, Applications of Machine Learning, Natural Language Processing

### Skills

Languages: Over 10000 lines: Java • Python Over 5000 lines: C • C++ • Shell Familiar: Scala • R • Javascript

Machine learning aids: Keras • Tensorflow • PyTorch • Spark MLlib • SkLearn • Pandas

**Automation/Build Tools:** Jenkins • Docker • Kubernetes

Big-Data Frameworks: Hadoop • Storm • Spark • Beam • Kafka • Hive • Mahout • Oozie • Pig • Elasticsearch

**Databases:** MySQL • MongoDB • Cassandra • Teradata

# **Professional Experience**

# VIACOM | DATA SCIENCE INTERN

Jun 2018 - Aug 2018

- Built an end-end machine learning pipeline that continuously learns from social media data and provides personalized strategies to brands to improve customer engagement and increase profit margin.
- Designed a ConvLSTM-based deep learning model to analyze user opinions on brands.

# @WALMARTLABS | DATA ENGINEER

Jan 2016 – Aug 2017

- Developed the first revisions of WM Datalake, Walmart's central data repository for the Analytics Division utilizing HDFS / S3.
- Built a data movement framework using Sqoop, Oozie & Hive for Mainframe / Teradata to fill the lake, used to migrate 1000+ daily jobs.
- Contributed in the complete development cycle of Walmart's in-house unified programming model for creating data processing pipelines with Spark, Storm, Hadoop, Kafka and Cassandra.
- Set up the cloud environment for continuous real-time processing 5k TPS(5GB/sec) of store transaction data.

### **Research Projects**

### Realtime autonomous traffic signal switching system | RL4J, Zigbee

A machine learning project, in collaboration with <u>Bangalore Traffic Police</u>, to optimize the traffic light switching system using reinforcement learning in a non-intrusive method to solve the traffic congestion problem in Bangalore.

### Finding Connected components in Loss Surface | Tensorflow-GPU | Advisor: Prof. Joan Bruna

A <u>study</u> to investigate the nature of the loss surface of a deep neural network. Proposed an algorithmic technique to traverse different points of local minima from the hessian matrix decomposition of the loss function.

### Let's Tell Tall Tales | Keras, PyTorch | Advisor: Prof. Sam Bowman

A <u>study</u> on different attention-based encoder-decoder RNN architectures to create robust language models that can produce coherent short stories when made to interact with each other while trained on different corpora.

## Never Ending Learning of Sound | Weka, NumPy/SciPy, Tensorflow, OpenSmile, Audacity

A machine learning project, in association with <u>Carnegie Mellon University</u>, to design a web-based intelligent system that continuously searches and learns the meanings, associations, and semantics of sounds on the internet.

<u>Academic Projects</u>: • Contrastive Predictive Coding • Movie Memorable Quote Predictor • Cricket Match Simulation • LymphTracker • Multi-tasked Gender Predictor • Antibiotic Sensitivity Detector