# Sharvil Katariya

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### **EDUCATION**

### STONY BROOK UNIVERSITY

MS IN COMPUTER SCIENCE Expected Dec 2020 | Stony Brook NY

#### **IIIT HYDERABAD**

BTECH IN COMPUTER SCIENCE

Grad. 2017 | Hyderabad, India Teaching Assistant: Software Engineering

### **SKILLS**

### **PROGRAMMING LANGUAGES**

Python • Java • C • C++ • Ruby • Scala **TECHNOLOGY** 

HTML5 • CSS3 • Javascript • Django PHP • Spark • Android • Docker • Perl Tensorflow • Keras • PyTorch • MySQL AWS • AngularJS • Gulp • DynamoDB

### **PUBLICATIONS**

### INDICON CONFERENCE

Coimbatore, India | Dec 2018 A Privacy Preserving Approach to Generate Personalized Recommendation Based on Short Text Classification

### **ICACCI CONFERENCE**

Bengaluru, India | Sep 2018 Machine Learning for Secure Device Personalization Using Blockchain.

### **ICOST CONFERENCE**

Singapore | Jun 2018

A Personalized Health Recommendation System Based on Smartphone Calendar Events.

## **COURSEWORK**

#### GRADUATE

Natural Language Processing Computer Vision Data Science Fundamentals Analysis of Algorithms

#### **UNDERGRADUATE**

Machine Learning Complexity & Advanced Algorithm Operating Systems (OS) Database Systems Data Structures Internet of Things Artificial Intelligence

### **WORK EXPERIENCE & PROJECTS**

### SAMSUNG | SENIOR SOFTWARE ENGINEER (DATA INTELLIGENCE TEAM) Jun 2017 - Jul 2019 | Bengaluru, India

- Built a Generic Recommendation Platform, with a plug & play architecture for the addition of any new services to generate recommendations right off the bat.
- Devised short text classification models (including text based CNN models), that is fast & lightweight for life event & context prediction. Improved the ML model accuracy by 7% & remodeled the data pipeline
- Published 3 Research Papers and filed 2 Patent(s), based on the work done.

### VMWARE | SOFTWARE ENGINEERING INTERN

May 2016 - Jul 2016 | Bengaluru, India

- Developed a prototype to integrate Mobile Device Management agent Smart TV (across 5 different platforms) based on the proximity of the user carrying managed mobile device.
- Architected real-time processing using Apache Kafka and Spark Streaming to extract relevant information about meetings, using Outlook's REST API's.

### TEMPORAL PREDICTION MODELS | LSI LAB, IIIT

Achieved 96% R<sup>2</sup> score for time series prediction of environmental variable. Used techniques like RNN(LSTM, GRU), ARIMA, SARIMAX models for forecasting with the addition of seasonal and trend-based features.

### SEMANTIC ANNOTATION OF RESEARCH PAPERS | SIEL LAB, IIIT

Annotate any given research paper, based on ACM 's classification hierarchy. using document embeddings to achieve 97 % classification accuracy.

#### STOCK PRICE TREND PREDICTION | IIIT

Forecast stock returns on the basis of past returns & company sentiments from news, social media on the application of a variety of supervised ML techniques including many stock related features. (400+ stars)

### COMPILER FOR DECAF LANGUAGE | | || || |

- Developed a compiler front-end for Decaf Language (subset of C++)
- Modelled the lexical and syntax analyzer (parser) using Flex/Bison.
- Abstract Syntax Tree Generationg for the parsed program.
- Configured the compiler to generate LLVM IR for source program, using LLVM module and IR Builder Objects.

### WIKIPEDIA SEARCH ENGINE | IIIT

Programmed a highly efficient indexer and retriever for 56GB of Wikipedia data, reranking the webpages to increase P@K, R@K.

### **ACHIEVEMENTS**

Apr 2019	Patent
Jul 2018	Spot Award
Apr 2018	Patent
Feb 2016	Pioneer Makerthon
Oct 2015	Gitex Student Lab
Jun 2015	IoTX Hackathon
Feb 2015	Game On

Machine Learning on Blockchain Best Employee Award (Data Intelligence team) Secure Device personalization using blockchain Finalist for Android app named Bounty Hunter Top 10 Rank, showcased at GITEX Tech Week IoT project for Search and Rescue Missions First Place for Voice-based Web Game