# Sharvil Katariya

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Bellevue, WA

## **EDUCATION**

#### STONY BROOK UNIVERSITY

MS IN COMPUTER SCIENCE

Expected Dec 2020 | Stony Brook, NY Cum. GPA: 3.87/4.0 Teaching Assistant: Data Structures, NLP

#### **IIIT HYDERABAD**

#### BTECH IN COMPUTER SCIENCE

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

### SKILLS

Python • Java • C • C++ • Ruby • Scala HTML5 • CSS3 • Javascript • PHP • AWS Spark • Kafka • Android • Django • Flask Mysql • DynamoDB • MongoDB • Bower AngularJS • NodeJS • Pandas • Numpy Tensorflow • Keras • PyTorch • XGBoost

## COURSEWORK

Database Systems Analysis of Algorithms Machine Learning Computer Vision Data Structures Complexity & Advanced Algorithm Operating Systems (OS) Structured Systems Analysis & Design Computer Networks **Cloud Computing** Artificial Intelligence Information Retrieval & Extraction Internet of Things

# **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.

## WORK EXPERIENCE & PROJECTS

#### MICROSOFT | SOFTWARE DEVELOPMENT ENGINEER

March 2021 - Feb 2023 | Bellevue, WA

- Creation of interest-based user segments constituting to 40% User Growth with the help of newer ML models on scale for all International Markets.
- Designed Privacy-preserving mechanism to incorporate feedback from all Microsoft services. Active member of ideation meeting, contributing to 3+ ideas based on the teams work.

#### MICROSOFT | DATA SCIENTIST INTERN

May 2020 - Aug 2020 | Bellevue, WA

- Evaluated various model architectures to improve the Ad Click predictions for Bing's Native Ads Team by incorporating event time into sequential models.
- Secured 2nd place in Microsoft's C&Al Hack for Good hackathon for building a Microsoft Team's Tab Application to provide an interactive virtual class environment leveraging Azure's Cognitive Services as well as Bing APIs.

#### SAMSUNG | SENIOR SOFTWARE ENGINEER

Jun 2017 - Jul 2019 | Bengaluru, India

- Built Android apps to run short text classification models that are fast & lightweight (<1MB RAM) on Samsung devices.
- Implemented JNI layer to run native code as well as improved the preprocessing pipeline on devices to run 20% faster
- Developed scalable ML algorithms and production pipelines to predict smartphone users' demographics & interests based on app usage, geolocation, browsing behavior and music/video usage as obtained on Android devices.
- Built a Generic Recommendation Platform, with a plug & play architecture for the addition of any new services to generate recommendations right off the bat.
- Published 3 Research Papers and filed 2 Patents as well as mentored interns.

#### VMWARE | Software Engineering Intern

May 2016 - Jul 2016 | Bengaluru, India

- Developed a prototype to integrate Mobile Device Management agent across multiple Smart TV platforms including Android, Tizen, FireTV & WebOS.
- Created a web-based application using Angular JS, Node. js, Bower & Gulp
- Architected real-time processing using Apache Kafka and Spark Streaming to extract relevant information about meetings, using Outlook's REST APIs.

#### COMPILER FOR SUBSET OF C++ SYNTAX

- Modelled the lexical & syntax analyzer (parser) using Flex/Bison (Frontend)
- Abstract Syntax Tree Generation for the parsed program (Backend)
- Configured the compiler to generate LLVM IR for source program, using LLVM module and IR Builder Objects.

#### STOCK PRICE TREND PREDICTION

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 (600+ stars)

## **ACHIEVEMENTS**

July 2020 Third Place

MTA Back on Track Hackathon

Jul 2018 Spot Award

June 2020 Second Place C&AI Hack for Good: Interactive virtual class environment

Best Employee Award (Data Intelligence team)