# Sharvil Katariya

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## 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 • Azure • 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 using Azure and 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 teamś 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&AI 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 AngularJS, 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

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|---|---|---|
| July 2020 | Third Place | MTA Back on Track Hackathon |
| June 2020 | Second Place | C&AI Hack for Good: Interactive virtual class environment |
| Jul 2018 | Spot Award | Best Employee Award (Data Intelligence team) |