

# Sharvil Katariya

🏠 scorpionhiccup.github.io | in sharvilkatariya | 🌐 scorpionhiccup

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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 • 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 | 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.

### COVID DATA ANALYSIS USING SPARK AND HADOOP

Wrote Spark jobs to analyse the COVID-19 dataset, with using distributed caching to speed up runtime to perform spatiotemporal analysis.

### 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.

### WIKIPEDIA SEARCH ENGINE

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

### 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
June 2020	Second Place	C&AI Hack for Good: Interactive virtual class environment
Jul 2018	Spot Award	Best Employee Award (Data Intelligence team)