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

- Developed scalable ML algorithms and production pipelines to predict smartphone users demographics interests based on app usage, geo-location, browsing behavior and music/video usage. Increased sales of Samsung Galaxy Smartphones.
- 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, FB's FastText, SVM), 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^2 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 | IIIT

- 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	Machine Learning on Blockchain
Jul 2018	Spot Award	Best Employee Award (Data Intelligence team)
Apr 2018	Patent	Secure Device personalization using blockchain