

Aveena Kottwani

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Education

Master's in Computer Science, Stony Brook University

Aug 2019 - Dec 2020

Teaching Assistant: Data Structures and Algorithms (CSE 214)

Bachelor's in information technology engineering, Sardar Patel Institute of Technology

Aug 2012 - June 2016

Relevant Courses: Machine Learning, Distributed Database Systems, Algorithms, Cloud Computing, Probability and Statistics, Data Science Fundamentals, Data Structures, Operating Systems, Computer Networking

Work Experience

Juniper Networks (Mist Systems)

Software Engineer Intern

June 2020 - Aug 2020

- Created highly scalable public facing APIs for providing location data to deliver wayfinding services
 - Upgraded the Spark infrastructure from EMR clusters to Kubernetes using open-sourced GCP Spark-on-K8s operator saving 30% infrastructure cost
 - Created automated monitoring and alerting for infrastructure components in SignalFx, Prometheus, Grafana
- Technologies: Django, Python, Postgres, Redis, Kubernetes, SignalFx, Prometheus, Grafana, Terraform, AWS, GCP

Nomura Nvantage Consultancy (Banking)

Senior Software Developer – Mumbai, India

July 2018 - Aug 2019

- Rearchitected Corporate Action application from a monolith to microservices architecture for notification and payments modules using Java and Spring framework increasing fault tolerance by 60%
- Revamped deployment lifecycle to CI/CD pipelines in Jenkins, Docker containers and Kubernetes reducing the deployment time from ~2 hours to 30mins in any environment
- Designed a question-answer chatbot for corporate action events for real-time data reporting utilized by 100 key management stakeholders

Technologies: Java, Python, Docker, Sybase, Shell, Jenkins, Maven, Git, Spring Boot

Nomura Investment Bank

Software Developer - Mumbai, India

July 2016 - July 2018

- Devised a new notification and payments system to efficiently process trade events using Apache Kafka. Improved processing throughput from ~2M to ~50M events/hour.
- Designed and deployed Trade Status Reporting Dashboard and its backend RESTful web services catering to 10,000~ traders and middle-office teams
- Created automated tests using Robot framework to ensure 100% code coverage

Technologies used: Apache Kafka, Java, Spring MVC, Sybase, Shell, Perl, Ant, Adobe Flex, SVN

Academic Projects

github.com/aveenakottwani

Eye tracking Data Analytics: Predicting Human Eye Fixations via an LSTM-based Saliency Attentive Model and using different optimization techniques to improve the accuracy (Jan 2020-Present)

Twitter Data Analytics: Processed Twitter data on the Hadoop Distributed Filesystem (HDFS) using MapReduce to identify locations for highest opioid usage regions on geospatial data

Tech: PySpark, Hadoop

Action Classification Using RNN: Based on the sequential data, trained recurrent neural networks (RNNs) with different parameters to classify human actions with 87% accuracy using optimization techniques

Tech: PyTorch, Jupyter

IMDb Movie Popularity: Implemented a predictive model for movie popularity, creation of popularity metrics and using Xgboost and decision-tree-based algorithms to get 89% accuracy.

Tech: Python, Jupyter, Scikit, BeautifulSoup

Text Summarization: Developed context-based summarization tool to convert the large text document to meaningful information obtaining Word2Vec vectors, POS tags, N-grams and published my work in [IEEE 2016](#)

Tech: Java, NLTK

Technical Skills

Language: Python, JAVA, Go, C++

Frameworks: AngularJS, React, Node.JS, REST Web services, Kubernetes, Docker, Ansible, Spring MVC Framework

Databases: MySQL, Postgres, Sybase IQ, Redis, Apache Spark, PySpark

Publications and Achievements

- Kottwani, A; Gupta, H; Chaudhari, S: Text analysis and Information Retrieval of Text Data – [IEEE WiSPNET 2016](#)
- Awarded Special Technology Accomplishment Recognition in 2017 and Going Extra Mile Award in 2018.
- IEEE Programming League - Secured 11th rank among students participating across India (2015)
- Recipient of J.R.D Tata Scholarship awarded to meritorious students across India for the year 2013, 2014 and 2015.