Darshan Vekaria

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EDUCATION

Virginia Tech, Blacksburg, VA   Aug, 2021 - May, 2023
Master of Science, Computer Science, GPA: 4.0/4.0   Teaching Assistant for Data Structures & Algorithms

Institute of Technology, Nirma University   July, 2016 - May, 2020
B.Tech., Information Technology, GPA: 8.18/10   Leadership: Technical Director, ISTE

WORK AND INTERNSHIP EXPERIENCE

TikTok   May, 2022 - Aug, 2022
Software Engineer Intern   *Mountain View, CA*
- Globalized TikTok effects to **reduce downstream RPC calls by 82%** & latency of effects tab by **13%**
- **Enhanced** cross country **user experience** by reducing network call failures to provide consistent view of effects tab for **1 billion users.**
- Designed new **API interface** from scratch to enable effect designers to select a featured video of their choice.

Crest Data Systems   July, 2020 - June, 2021
Software Engineer   *Ahmedabad, IND*
- Developed a UI automation testing framework for Splunk Apps using node.js and WebdriverIO, which reduced daily manual testing efforts by **6 hours**. Led weekly peer level code reviews.
- Created script for App installation on Splunk VM which reduced manual installation time of **1 hour**
- Analysed issues on Jenkins test builds and provided fixes to bring down testing errors from **20% to 5%**

Crest Data Systems   Jan, 2020 - June, 2020
Software Engineer Intern   *Ahmedabad, IND*
- Developed a Splunk based **task manager** for Linux OS. Collected OS data from Python scripts & shell commands.

RESEARCH & SELECTED PUBLICATIONS

Graduate Research Assistant, SWIM Center, Virginia Tech   Sept, 2021 - May, 2022
Thesis: Developing system scale Artificial Intelligence framework for water utility operations
Publications: (Co-author on a total of **7** publications)
- ξboost: An AI-based Data Analytics Scheme for COVID-19 Prediction and Economy Boosting, IEEE Internet of Things Journal (Impact Factor: 11.705) (Also indexed in WHO's literature on COVID-19)
- Redills: Deep Learning-based Secure Data Analytic Framework for Smart Grid Systems, 2020 IEEE International Conference on Communications (ICC) Workshops, Dublin, Ireland

PROJECTS

D3 Visualizer for Road Accidents | *D3, jquery, Bootstrap, Javascript, HTML, CSS, Information Visualization*
- Created **interactive and dynamic** data visualizations dashboards to depict the statistics of USA road accidents for last 3 years using D3 javascript libraries

Redis | *Java, Collections, Spring Boot, VS Code, Object Oriented Programming*
- Developed an In-memory data structure for key-value store which is used as a database and cache for operation like add, range, expire, rank etc.

Theatre Seat Allocator | *Java, Heaps, Maps, Expection Handling*
- Designed a seat allocation algorithm which maintains social distancing of 3 columns and 1 row among viewers. Finds seats with best and worst case time complexity of **O(log n)** and $O(n^2)$

TECHNICAL SKILLS & COMPETITIVE PROGRAMMING

Languages: Java, Go, Python, C/C++, Shell, SQL, JavaScript, HTML/CSS
Libraries: D3.js, pandas, NumPy, Matplotlib
Tools & Frameworks: MySQL, Splunk, Node.js, Spark, Spring Boot, Git, VS Code, Jenkins, Jira, Postman

–> 2021 **ACM ICPC** Mid-Atlantic USA **Regionalist (Top 50)**
–> Ranked in **top 8 % among 24,000+** participants in Codechef March Challenge 2021 Division 3