YASHASVI KANCHUGANTLA

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Education

- **San Jose State University University** California, US
  Master of Science, Data Analytics, ***GPA: 3.9/4*** *Jan 2024 - Present*
  Coursework: Distributed Systems, Machine Learning, Database Systems
- **Indian Institute of Technology, Kharagpur** IIT Kharagpur, India
  BTech in Computer Science and Engineering *Jul 2015 - May 2019*
  Micro Specialization in Intelligent Learning Systems Design; ***GPA: 8.03/10***

Skills Summary

- **Languages**: C, C++, Ruby, Python, Java, Golang
- **Tools**: Kubernetes, Docker, Kafka, CUDA
- **Frameworks & Others**: MySQL, PostgreSQL, MongoDB, Git, Unix, AngularJS, OOPS
- **Certifications**: NVIDIA's Accelerated Computing in CUDA C/C++

Work Experience

- **Motive Technology Inc, India - Backend Engineer** *Dec, 2021 - Nov, 2023*
  - Owned Alerting Modules for Tire Pressure detection and Fault codes from design to production deployment. — *Complete microservice implementation in* ***Golang****, maintenance, enhancements and* ***Kubernetes*** *deployment.*
  - Implemented pipepline Fault codes detection and vehicle maintenance from IoT events using Kafka messenger
  - Contributed to software for inspecting vehicles and their tracking. Implemented daily reports reviewing, Alerting modules through the SDLC — *Technical design and implementation, Optimization and Rollout captaincy.*
  - Brought down p95 API response times for the above services from existing **5min to 2.3sec** by spearheading **table partitioning** and by de-coupling PostgreSQL tables and using several **query optimization techniques** on codebase.
  - Optimized endpoints on the Vehicle inspection Reports interface for admins, using DB optimizations on tables- indices, partitioning, reducing in-memory utilization. P95 API response times have been reduced from 5min to <5sec
- **Visa Inc, Bangalore - Software Engineer** *July, 2019 - Feb, 2022*
  - Among the 6 chosen individual contributors on a product to merge revenue billing platforms of 5 continents to a **Global revenue billing platform**(Global Operating Certificates) for **33% of Visa's revenue(22Bn$)**.
  - Designed an encoding of about 300,000 different types of cards worldwide to a standard metric classification to make billing hassle-free.
  - Implemented modules to identify variations and validations of all the **300k card metrics YoY, QoQ and MoM** entered by banks. Technologies: Java-Spring Boot, AngularJS, and MySQL
- **Schlumberger India Pvt Ltd - Engineeering Intern** *May, 2018 - July, 2018*
  - Overhauled part of business software to Microservices, as proof of concept, to migrate the whole architecture from Monolithic.
  - Technology used: Java, Spring Framework — Kubernetes deployment to demonstrate agility of cloud development.
  - The project led to ideation of converting several other data intensive legacy softwares to Microservices.

Research and Academic Projects

- **Analysis of Electric Vehicles and Charging Infrastructure**
  Database Systems for Analytics *Feb 2024 - April 2024*
  - Designed and **implemented a data pipeline to incorporate ETL and perform data warehousing** through Google Cloud Platform for efficient analysis of electric vehicle adoption trends.
  - Utilized a variety of database technologies including MySQL for relational data, **Neo4j and KuzuDB for graph-based analysis of charging station networks**, and BigQuery for large-scale data processing and querying.
  - Created interactive data visualizations and dashboards using Tableau, directly from BigQuery for real-time data analysis, and employed statistical techniques to derive metrics like "Vehicle Load" for assessing charging infrastructure adequacy.
- **Optimization of number of channels in cognitive load & motor imagery signals of EEG**
  BTP Dissertation, Prof.Debasis Samanta *IIT Kharagpur*
  - Integrated statistical filtering methods with a novel wrapper approach, Prediction Shuffling, to enhance model performance in feature selection.
  - Implemented state-of-the-art techniques, including Mutual Information, MDMR, Fisher methods, and Genetic Algorithms, achieving an accuracy of 83.21% and optimal performance of 74.36% using GA-MLP.
- **Off-Topic Detection And Linking In Massive Open Online Courses(MOOCs)**
  Prof.Plaban Kumar Bhowmik *IIT Kharagpur*
  - Developed OffVid: A system for linking off-topic concepts to topically relevant video lecture segments in NPTEL lectures
  - Identified the topics in video lectures using its transcripts and **detected off-topics with Concept Similarity Networks(CSN)**.
  - Performed a holistic user study to evaluate the quality and correctness of this system.

Publications (Selected)

- **Nangi,** et al., "OffVid: A System for Linking Off-Topic Concepts to Topically Relevant Video Lecture Segments", ICALT-2019 [Paper]

Awards and Achievements

- Secured an All India Rank - 769 in JEE-ADVANCED 2015
- **Extra-Academic**: Instrutional Student Grader for Math Methods for Analytics - topics include PCA, Linear Regression