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MAYUR SHASTRI

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WORK EXPERIENCE

VERILY (GOOGLE) LIFE SCIENCES – MOUNTAIN VIEW, CA — OCTOBER 2021 – PRESENT

Software Engineer III

- **Led the implementation** of a modular rollouts system in Study Builder, enabling study designers to publish independent pieces of configurations, improving scalability and efficiency.
- Designed and built a new data model for the Schedule of Events architecture, simplifying how trial protocols are configured and supported on the platform, **reducing workload by 40%** during the study onboarding process.
- Developed back-end services that store and serve these published study configurations to the rest of the platform.
- **Achieved 90% test coverage** with a robust integration test suite, reducing bugs and enhancing development reliability.

JUNIPER NETWORKS – BOSTON, MA — JUNE 2021 – OCTOBER 2021

Software Engineer

- Improved out of box experience of 128T routers by re-hauling UI to provide easy to understand view of applications running on the router.
- Deployed APIs to classify **more than 90% of traffic** on the routers while providing detailed analytics on the application rx/tx bandwidth, time to first packet and retransmission counts.

FRACTAL ANALYTICS INC. – NEW YORK, NEW YORK — MAY 2020 – AUGUST 2020

Software Engineer Intern, Machine Learning

- Developed tool to **perform object detection** using PyTorch on **real-time drone footage** to detect if social distancing protocols are being followed as part of public health guidelines.
- **Increased Average Precision (mAP) by 35%** while benchmarking on the ImageNet and VisDrone datasets with an Intersection over Union (IoU) threshold of 70%.

CMS COMPUTERS LTD – MUMBAI, INDIA — JUNE 2017 – AUGUST 2017

Software Engineer Intern, Machine Learning

- Developed a smart-parking application using Caffe that **performed vehicle detection and classification** to accurately estimate the number of vehicles that can be accommodated in an open parking space.
- The results of the application deployed in the city of Mumbai showcased **a 91% accuracy** while classifying vehicles and **reduced average time waiting for a parking spot by 45%.**

TECHNICAL SKILLS

LANGUAGES: Python, Java, C++, JavaScript, Go
FRAMEWORKS: React, AngularJS, VueJs, jQuery, Node.js, Express.js, Redis
TECHNOLOGIES: Android, Maven, MySQL, MongoDB, Docker, Kubernetes (with Kustomization), Git
ML LIBRARIES: Numpy, PyTorch, TensorFlow, Scikit-learn, Pandas, NLTK

PROJECTS

COVID-19 TRACKER

- Created data aggregation platform using **Java, Apache Kafka and Spark** to process streams of COVID-19 data from multiple sources into a unified tracking dashboard built using React.
- Deployed various components as microservices using **Docker and Kubernetes**.

ENIGMA

- Built and launched the backend ecosystem of a global cryptic challenge that has **hosted over 10,000 users**, using Node.js and MongoDb.
- Led a team of 4 developers to **engineer regression models** for performing tasks such as cheating prediction and awarding bonus hints for users.

EDUCATION

UNIVERSITY OF MASSACHUSETTS, AMHERST — Sept 2019 - May 2021
M.S. COMPUTER SCIENCE | GPA: 3.9/4.0
GRADUATE COURSEWORK: Neural Networks, Machine Learning, Applied Statistics, Database Implementation and Design

VELLORE INSTITUTE OF TECHNOLOGY, VELLORE — JULY 2015 - MAY 2019
B.E. COMPUTER SCIENCE AND ENGINEERING | GPA: 3.9/4.0
UNDERGRADUATE COURSEWORK: Data Structures and Algorithms, Parallel and Distributed Systems