

Sowmya Yellapragada

Machine Learning Engineer



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About me

I am an experienced software engineer with a proven track record of designing, and implementing an ML infrastructure platform to streamline and optimize end-to-end machine learning pipelines.

I am adept at collaborating with crossfunctional teams, and advocating for and gaining buy-in from teams to adopt ML platform and MLOps best practices.

Experience

Jun 2020 Present

Senior Machine Learning Engineer

GoPuff | Remote, Germany

- MLOps
- Designed ML infrastructure platform to streamline and optimize ML end-to-end lifecycle.
- Led a team and delegated tasks to develop the ML platform.
- Advocated for the ML platform and spearheaded efforts to establish MLOps best practices across the organization.
- · Machine Learning Engineering
 - Set up event-based data pipelines in multiple cloud environments (GCP, Azure) to gather training data for ML models.
 - Built microservices (>5) to host multiple ML models (XGBoost, Pytorch) and deployed them to production. These ML services received high request loads of upto 400 rps and were able to serve them at low latencies < 100 ms.
 - Facilitated A/B testing of multiple models in the ML services.
 - Implemented monitoring systems to track model performances and drift detection in production environments
- Data Scientist
 - Built multiple models to improve the accuracy of the travel time predicted by the routing engine

Apr 2019 Jun 2020

Data Scientist Daiml

Daimler Mobility Services GmbH | Berlin, Germany

 Built machine learning models to predict real-time road statistics such as turn costs, speeds, and personalized routing using position updates from user data. This in turn helped improve the predicted route quality and estimated travel time of the routing engine.

May 2018 Aug 2018

Machine Learning Intern

Uber Technologies Ltd | California, USA

 Analyzed taxi GPS data and built a supervised learning ML model to identify cases of fraud due to GPS spoofing.

Jul 2015 Jul 2017

Software Developer

Zoomcar Pvt Ltd | Bangalore, India

 Built and maintained the business iOS application that received over a million active monthly users. Developed new features, and handled software updates, patches, and bug fixes.

Education

Aug 2017 Dec 2018 MSc. Computational Science & Engineering Georgia Institute of Technology | Atlanta, USA

Aug 2011 Aug 2016 Msc. Mathematics & BE. Manufacturing Engineering
Birla Institute of Technology and Sciences | Pilani, India

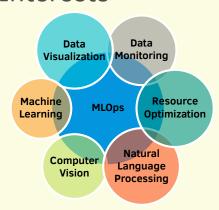
Patents

Apr 2022

Predicting ETA based on historical route data

- Built and patented a software system that can predict estimated travel time using a historical snapshot of road statistics such as speeds, route restrictions etc.
- This system helped us generate data for training ML models to improve the travel time estimates of our routing engine.

Interests



Programming Skills

Python • Java

Kubernetes • Docker • Git • GitOps

MLFlow • Seldon Core • TorchServe

Prometheus • Grafana • Datadog

C++ • Golang • Terraform

ArgoCD • Concourse

Languages

English (C1 - Professional Work Ability)

German (A2 - Elementary Level)

Telugu (C2 - Native Language)

Projects

Machine Learning

Cloud detection and removal in RGB satellite data

Computer Vision

• Built a deep learning model to detect clouds in satellite imagery and accurately im-paint the scene underneath the clouds while ensuring image recency.

Machine Learning Collaborative filtering - Recommendation System **GitHub Link**

Graphical Models
• Implemented and compared probabilistic inference based on graphical models such as the Restricted Boltzmann Machine, Deep Belief Network, Sparse Denoising, and Variational Autoencoders for recommending movies to users' preferences.

Python ML tool **ML Project Template**

GitHub Link

Blog Link

• Easy-to-use tool to automate the boilerplate code for most machine learning projects.