Yogendra Yatnalkar

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Education:

BE in Information Technology
Mumbai University (Fr. CRCE) – **(2016 - 2020)**
CGPA: 8.75

Experience:

Quantiphi Analytics:
Worked on **6 POC's, 1 Production deployment, 1 Product & 4 RnD.** Other responsibilities include: **Sales Engineer** (**7+ sales deal)**, mentor and interviewer.

- **Senior Machine Learning Engineer** (March '22 - Present)
- **Machine Learning Engineer** (August '20 - Feb '22)

Budsta Analytics:
Anomaly and breakdown detection on industrial machine video sequences

- **Computer Vision Intern** (January '19 - March '19)

Certification:

AWS:
- **Machine Learning Speciality** (Dec '21)
- Solution Architect Associate (Nov '20)

GCP:
- Associate Cloud Engineer (Dec '20)

Nvidia:
- **2 certificates** –→Numba, Triton

Awards and Recognition:

Quantiphi:
- **Trained 12+ interns** in 3 years
- **Top 5** campus **ML Interviewe**r
- **Award:** Q's Think-Tank

BE College (Fr.CRCE):
- Excellence in **Applied Mathematics**
- **Team-Leader** in **SIH** 2019 (**Worlds Largest Hackathon**)

Extra-Curricular:

- **AWS Community Builder** (2022 - Present)
- Writing Blogs

Skills:

Core Skills: **Computer Vision**, ML on **AWS**, **MLOps**, **SageMaker** Deployment, Drift & Explainability, SQL, **Churn** Prediction
Experience on: Python, **Pytorch**, TF2, **OpenCV**, **XGBoost**, Shapley, AWS **Athena**

Industry Projects: (POC - Proof of Concept, CV - Computer Vision)

Spyne.ai clone - Saliency segmentation, GAN, Matting & more:
- Segment the salient car from the parking lot –→ add shadow below it –→ register it on any background template.
- **Tagging:** Led a team of **4 taggers** for **5 weeks**. Tagged **7000+ images**.
- **Trained** segmentation model **(U2Net)** for **7 days** on a **single GPU.**
- Researched and trained a custom **GAN model for shadow generation.**
- **Multi-GPU training** using Horovod and Pytorch DP/DDP
- **Turned 80 thousand dollars POC to 1 Million+ dollars project**
- **Keywords**: CV-POC, Segmentation, GAN, **OpenCV**, **Pytorch**, **AWS**, Tagging

NeuralOps - Quantiphi's MLOps Product on AWS cloud:
- **Core Member** during product development. Developed **end-to-end MLOps components** and **pipelines** for image classification tasks using **AWS** (mainly **SageMaker**) and **Airflow**.
- **MLOps Components**: Processing, Training, Monitoring & Explainability
- **MLOps Pipelines**: Training, Batch & Real-time inference, Drift Detection
- Used **KS Statistic test** and **Entropy** for Computer Vision **drift detection**
- **Guiding** the **Q's GCP team** for migrating this product to GCP cloud
- Technology Stack: AWS (**SageMaker**), **Airflow**, SageMaker Pipelines, TF2

Webpage Elements detection and Contrast Validation: (CV-POC)
- Detect and extract web-elements like buttons, dropdown, etc –→ Compute contrast of every element with its background –→ Calculate entire webpage contrast score.
- **Trained multiple Yolo v5 models** and integrated them in the CV pipeline.
- Used **traditional CV techniques** for contrast validation. Developed a custom **color-quantization** software using **clustering and binary trees.**
- **Tagging:** Led a team of **5 taggers** for **3 weeks. Tagged 4000+** images for Object detection task.

Document Translation Pipeline on GCP Cloud: (Production Deployed)
- Input Document –→ XML Parsing to extract text –→ Translate using **GCP translate API** –→ **document processing** for translated document to have the exact same UI
- Developed a **unique** solution for **server crashing** using **Python Multiprocessing.**
- Developed a document processing solution with **quality better than GCP advance API.** Client **chose our solution** for the **final production roll-out**.
- **Keywords**: LXML parsing and processing, GCP Vision and Translate API

Few Other POC's:
- **Churn Prediction** for a global ed-tech platform using **1.5 TB of CSV data.** Used **SQL (AWS Athena)** to process data and create features, **XGBoost** for model training and **Shapley values** for model **explainability**

- **Identifying ad-brands on** every time-stamps in football **match videos** using **AWS Rekognition** and **fuzzy search**

- **AWS Immersion Day:** Training client-partners on AWS SageMaker

Industry Research:

- **Multi-Task Learning:** Tensorflow 2 vs Pytorch
- **Entropy** for Drift-Detection
- **Backtracking AWS** Lookout For Vision service: (AWS recognized me for this)
- Explored **Tensorflow 3D**