

SACHIT SHANBHAG

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Interested in the fields of Artificial Intelligence, Generative AI, and Computer Vision.

EDUCATION

B.Tech. in Chemical Engineering | Indian Institute of Technology, Bombay 2017-2021

PROFESSIONAL EXPERIENCE

Data Scientist III/Data Science Engineer | Inito (YCW19) Aug 2021 – Nov 2023

Role at Inito (Samplytics Technologies):

- Spearheaded development of cutting-edge machine learning and deep learning solutions for ELISA test image analysis.
- Contributions in **algorithm optimization, deep learning, cross-device compatibility, MLOps**, and stakeholder support.

Machine Learning and Deep Learning Contributions:

- Developed **SVM-based classifiers** & detectors on macro qualities of images (textures & colors - HSV channel, LBP, etc).
- Improved overall error metrics from 60% to **98% using DL algorithms** (using efficientnet, umap, etc).
- Developed **detection and segmentation algorithms** to process tests and detecting anomalies (detectron2, YOLOv3/5/8, etc).

Cross-Device Compatibility and Integration:

- Extended algorithms and developed **generalized pipelines** for cross-device compatibility (Android, iOS, standalone wireless device) and accommodated diverse hormones, subunits and assay configurations.
- Integrated systems with **GCP** to achieve accurate inference, consolidating them into a single focal point.

Deployment and Framework Development:

- Developed deploy testing frameworks and **CI/CD pipelines from scratch** to improve deployment cycles and batch lifecycles.
- Generalized the image processing system to handle **assay configurations and hormone combinations** at inference time.
- Developed tools and frameworks, supporting stakeholders in faster iterations in the product's batch and deploy lifecycles.
- Developed **controller systems for image processing systems**, enabling control-based reprocessing based on output signals.

Summer Intern | Ernst & Young LLP May 2020 – Jun 2020

Worked on a leading global AlcoBev company for cost improvement, focusing on Supply chain and Operations

Summer Intern | Daticore LLC Apr 2020 – May 2020

Contributed towards research & design of a product idea for IT expense management solution, Received **LOR** from the founder

SKILLS

Programming: C++, Python, Git, MATLAB, DAX **Frameworks & Libs:** PyTorch, Tensorflow, Keras, darknet, scikit-learn
Technologies: AI, Computer Vision, LLMs **MLOps:** Google Compute, Flask, Apache Airflow, Elasticsearch

LEADERSHIP AND MENTORSHIP

Manager (Events) | Techfest, IIT Bombay Mar 2019 – Mar 2020

Part of the 24-member Core Team of Asia's Largest Sci-Tech Festival | Budget: INR 7.4 Crores | Footfall: 1,75,000+

LEADERSHIP	<ul style="list-style-type: none">• Headed a 2-tier team of 80+ students to optimise work distribution for smooth execution of events• Negotiated with 50+ embassies, consulates and int'l organisations to rope in int'l participation• Optimised and managed entire int'l exhibitions under zero travel budget Footfall: 60,000+
INITIATIVES	<ul style="list-style-type: none">• Organized lectures with the world's first actor humanoid, 'RoboThespian' and 'Einstein Robot'• Outlined nation-wide bone density check-up camps 10,000+ people screened 50+ camps
MANAGEMENT	<ul style="list-style-type: none">• Amplified Techfest's national reach by expanding zonal tech competitions into 6 zones & initiated Techfest Olympiad for school children, catering to a total of 7400+ students (48% y-o-y growth)• Received LOR from Consulate General of Hungary in Mumbai for exemplary in-fest management

Institute Student Mentor | Institute Student Mentor Program, IIT Bombay Jul 2020 – Aug 2021

Social Service Volunteer (teaching) | National Service Scheme, IIT Bombay Jul 2017 – Apr 2018

- Taught campus workers computers, digital literacy tools (MS word, docs, UPI, etc); completing 80+ hours of social work
- Ideated and worked for the Neem School Initiative, imparting social values like empathy to children living in slums

CERTIFICATIONS

- **Technology:** Neural Networks and Deep Learning: Deeplearning.AI, Business Analytics for Decision Making: CU
- **Management & Finance Specialisations:** Strategic Leadership and Management, (with hon. in Business Strategy), Financial Accounting: UIUC, Analysing and Visualizing Data with Excel: Microsoft, Strategic Management: IIMB