

# Shakuntala Mitra

## EDUCATION & CERTIFICATIONS

Johns Hopkins University | M.S. in Artificial Intelligence Current

University of California, Santa Barbara | B.S. in Biochemistry & Molecular Biology 2015 – 2019

## WORK EXPERIENCE

QUALITY CONTROL ANALYST II Dec 2022 – Present  
Vericel Corporation | Cambridge, MA

- Assay improvement and quantitative data analysis for molecular biology assays and cell culture assays
- Collaborating with R&D to compile and analyze data for technical reports

ASSOCIATE DATA SCIENTIST Sept 2021 – July 2022  
AWE Technologies, LLC | Boston, MA

- Established a scalable analysis pipeline by integrating AWS tools with a custom PostgreSQL database during internal algorithm development phase of major client project
- Developed machine learning algorithms and neural networks for anomaly detection using Python, Tensorflow, and PyTorch
- Compiled data visualizations and feature extraction results into progress reports for primary stakeholders

QUALITY CONTROL ANALYST II Sept 2020 – Sept 2021  
Minaris Regenerative Medicine | Mountain View, CA

- Supervised cross-functional team as QC project leader and SME for one major commercial client
- Enabled client product's transition from FDA Phase I to Phase II Clinical Trials by executing stability studies
- Improved processing time by 33% by revising technical documents (SOPs, WIs) for multiple assays

## CERTIFICATIONS

Grow with Google | Data Analytics Professional Certification 2022 – 2022

Springboard School of Data | Data Science Career Track Certification 2020 – 2021  
Advanced Machine Learning Specialization

## TECHNICAL SKILLS

**Programming Languages:** Python, SQL, R

**Machine Learning Frameworks:** PyTorch, Tensorflow, Keras, Scikit-Learn, OpenCV

**Platforms:** AWS, Docker, Flask, Heroku, Linux, Jupyter Notebook

## PROJECTS

OFFLINE HANDWRITTEN SIGNATURE VERIFICATION

- Distinguished between genuine and forged signatures using Siamese Convolutional Neural Networks built with **Python**, **PyTorch**, and **OpenCV**

PREDICTING CANCEROUS P53 MUTANTS

- Predicted transcriptional activity and identified potential therapeutic targets for cancerous p53 proteins using supervised classification algorithms using **Python, Scikit-Learn, and Pandas**

#### DEXTER 2.0 : WHITE BLOOD CELL CLASSIFIER

- Detected and classified types of WBCs from images using Fast R-CNN and YOLO v3. Built with **Python, Tensorflow, Keras, and OpenCV**.