Sukanya Saha

MS student at CU Boulder ● CSRMP Aprentice at Google ● Ex Software Engineer at HSBC

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Work experience

Google, USA - **Computer Science Research Mentorship Program Apprentice:** Sep 2021 - Jan 2022

- Receiving mentorship from a Googler to pursue computing research on **bias aware and privacy-preserving machine learning**
- **Personalized stylish recommender bot using natural language processing, generative models, and computer vision**

HSBC, India — **Software Engineer - Data:** Mar 2019 - Dec 2020

- Improved click through rate by 5% of personalised advertisement by building digital customer segmentation model using unsupervised machine learning
- Built a model to predict credit card utilization to generate offers
- Developed a web application using topic modeling with customers' preferences and sentiments to compare mobile banking apps
- Acheived 91% accuracy on customer return to purchase ML model with efficient data collection
- Developed a web-based FAQs Chabot using Natural Language Processing
- Gained 81% accuracy on customer attrition ML model with high dimensional data to decrease customer churn

Cognizant, India — **Software Engineer:** Aug 2016 - Feb 2019

- Increased **Recall by 5%** on customer re-purchase **predictive model** for **Marketing Analytics** team
- Built **Resume Screening** application using **OCR** to decrease average screening time from 1 week to 2 days
- Streamlined and simplified high volume customers' onboard validation process using **Text Summarization**
- Developed **CCTV surveillance in ATMs** using convolution neural network and activity recognition to reduce fraud
- Built Server Failure Prediction model on a network using anomaly detection to enhance fault tolerance

Education

University of Colorado Boulder, US **- MS in Computer Science:** Jan 2021 - Dec 2022

- E-Commerce application with distributed backend services using **Python**, **Flask**, **JavaScript**, **gRPC**, **RAFT Protocol, Atomic broadcast,** and **Google Cloud Platform**
- Enhancing Privacy in **Federated machine learning** using **differential privacy**

Awards, Extra-Curricular and Certification

- Ranked **65th in Indian Engineering Olympiad**
- Conducted STEM-ed training for differently-abled children in the **Indian Institute of Mother and Child** NGO
- Certification on Deep Learning and Generative Adversarial Networks Specialization by deeplearning.ai

Skillset (Proficient)

Programming languages

`Python`

ML libraries

`numpy` `scikit-learn` `matplotlib` `pandas` `plotly` `PyTorch` `TensorFlow` `Keras`

Computer Vision libraries

`OpenCV`

NLP libraries

`spaCy` `Gensim` `NLTK`

Web automation tools

`Beautiful Soup` `Selenium`

Web frameworks

`Flask`

Databases

`MySQL` `BigQuery` `MongoDB` `MS SQL Server`

Tools

`Git` `Jupyter notebook` `GCP`

Skillset (Intermediate)

Programming languages

`Golang` `Scala` `C` `JavaScript` `Java`

Web technologies

`gRPC` `REST` `React` `HTML` `CSS`

Tools

`Webot` `DialogFlow`