

# Sukanya Saha

MS student at CU Boulder • CSRMP Apprentice at Google • Ex Software Engineer at HSBC

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## Work experience

### Intel - Software Engineer Intern: May 2022 - Dec 2022

- Detect anomalies in designing and testing standard cell libraries(building blocks of integrated circuits) using computer vision and deep learning

### Google - Computer Science Research Mentorship Program Apprentice: Sep 2021 - Jan 2022

- Received mentorship from a Googler to pursue computing research on MS independent study project on Virtual stylist that lets you try clothes online using generative models and computer vision

### University of Colorado Boulder - Teaching Assistant: Jan 2021 - Present

- Teach students Principles of Programming Languages to the class of 270 undergrads

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

- Outperformed existing click through rate which is proportional to revenue generation by 5% on **personalized advertisement by digital customer segmentation** model using unsupervised machine learning
- Developed a web application using topic modeling with customers' preferences and sentiments to **compare mobile banking apps** that helped to prioritize feature development, bug fixing, choose criteria for A/B testing
- **Forecasted customer attrition** with 81% accuracy which decreased customer churn and stopped the loss of revenue

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

- Automated **Resume Screening** process using OCR to decrease average shortlisting time from 1 week to 2 days
- Architected **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 for Electronics and Instrumentation
- Conducted STEM-ed training for differently-abled children in the Indian Institute of Mother and Child NGO
- Certification in 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**