

Sukanya Saha

Software Engineer- Machine Learning

RESUME

Software engineer with experience in building end-to-end highly scalable and robust applications with distributed architecture and highly skilled in statistical models, deep learning, natural language processing, and computer vision.

EDUCATION / TRAINING

2021-2022	University of Colorado Boulder, Boulder, USA, Masters in Computer Science GPA- 3.85 Coursework- Data Structures and Algorithms, Distributed Systems, Natural Language Processing, Computer Vision, Robotics
2018	Coursera(affiliated with Stanford University), Machine Learning
2019	Coursera(affiliated with deeplearning.ai), Deep Learning Specialization
2021	Coursera, Generative Adversarial Networks Specialization

EXPERTISE / SKILLS

Expertise

- Machine Learning, Deep Learning, Computer Vision, Natural Language Processing, Python, Libraries- numpy, pandas, scikit learn, matplotlib, pytorch, openCV, keras, NLTK, spacy, Frameworks- Flask, Scala, Golang

IT Skills

- MySQL, MongoDB, Jupyter Notebooks, Git, GCP

PROFESSIONAL EXPERIENCE

March 2019- December 2020: HSBC, India

Assistant Manager, Decision Science

Designed and developed Machine Learning models for the marketing analytics team

- Designed and developed a 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
- Archived 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

Skills: Unsupervised and Supervised Machine Learning, Natural Language Processing, Customer Segmentation, Customer Attrition, python, pandas, scikit-learn, MS-Excel, GCP, SAS, SQL query, Flask, HTML, CSS, Javascript, web applications

August 2016- February 2019: Cognizant, Bangalore, India

Data Scientist

Analyzed client data and build machine learning models for clients(Toyota, John Deere)

- 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

Skills: Data Analysis, Marketing Analytics, Computer Vision, OCR, Neural Networks, Predictive Modeling

Projects / Others

August 2021 – December 2021: Google, USA, Computer Science Research Mentorship Program Apprentice

- Receiving mentorship from a Googler to pursue computing research on bias aware and privacy-preserving machine learning

May 2021 – Present: University of Colorado Boulder, USA, Graduate Teaching Assistant

- Teaching Assistant for Principles of Programming Languages course
- Deliver recitation on functional programming, lambda functions, etc. to a class of 300 undergrad students and help them to debug code

August 2021 – December 2021: Research Project

- Personalized stylish recommender bot using natural language processing, generative models, and computer vision

January 2021 – December 2021: Coursework Project

- 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
- Tesla 3 simulation on Webots with the implementation of SLAM