

Rounak Sengupta
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Machine Learning with a background in Software Engineering

EDUCATION

Arizona State University (ASU), Tempe, USA

Master of Science, Computer Engineering (Computer Systems)

Master of Science, Information Technology

Anticipated graduation Dec 2020

Aug 2018 – 2019

National Institute of Technology Karnataka (NITK), Surathkal, India

Bachelor of Technology, Electronics and Communication Engineering

2012 – 2016

WORK EXPERIENCE

CloudPact (acquired by ASG Technologies), Hyderabad, India

Software Engineer

Jan 2017 – 2018

- Adopted Agile SDLC for developing and maintaining existing client projects and mobile applications, therefore ensuring high Client Satisfaction Index.
- Developed data mapping documents to translate business logic to technical requirements.
- Built and deployed Proof-of-Concept projects for incoming clients.

Zemoso Labs, Hyderabad, India

Software Engineering Intern

Sep 2016 – Dec 2016

- Learnt the basics of good Software Engineering practices. Tested on DS&A concepts on Codility.com.
- Developed a Trello clone as part of the final project. The clone was built in **AngularJS**, **Scala** and **MySQL**.

COURSE PROJECTS

Large Scale Recommender Systems, ASU

Dr. Jia Zou

Course: Data-Intensive Systems for Machine Learning

Spring 2020

- Built a Recommendation System based on the **Facebook DLRM**, as an experiment to boost memory efficiency by using **compositional embeddings**.
- The system utilized a **matrix factorization** model to reduce the complexity while preserving accuracy and reducing training time. An **attention model** was coupled with the DNN model to significantly boost accuracy.
- An accuracy of ~80% was achieved initially, which was improved to ~89% using the second approach.

Music Genre Recognition, ASU

Dr. Guoliang Xue

Course: Statistical Machine Learning

Fall 2019

- Performed signal processing on the GTZAN music dataset to generate a usable dataset for machine learning. The **Python** library, **Librosa** was used for this.
- Used different models such as **Support Vector Machines**, **Convolution Neural Networks**, **Logistic Regression** to generate the classifiers. Accuracies up to 96% were achieved.

Ethereum Blockchain Chat Application, ASU

Dr. Mehdi Sookhak

Course: Advanced Information Systems Security

Spring 2019

- Developed a decentralized chat app using the **Ethereum** Blockchain network.
- Utilized a combination of web3 provider, **MetaMask** for the transaction wallet. Smart contracts were made in **Solidity** as the backend. The frontend was made in **AngularJS**, **HTML** and **CSS**. The project was finally hosted on **IPFS** for implementing a fully decentralized system.

PERSONAL PROJECTS

Personal Website (Portfolio)

Summer 2020

- Built a portfolio website as part of a learning exercise for **web development**.
- Technologies used were **ReactJS**, **Bootstrap 4**, **Sass**, **CSS**.

Ultimate Calendar

Summer 2020

- Developed an Event Calendar, with similarities to the widely popular **Google Calendar**, as an open source library to be consumed by other projects.
- Built using **ReactJS**, **MongoDB**, **Bootstrap 4**.