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AAYUSHI SANGHI

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EDUCATION

Masters in Information Management and Systems, University of California, Berkeley

2021 - Present

Relevant coursework: Quantitative Research Methods, Natural Language Processing, Information Organization, AI in Healthcare Focus Areas: Machine Learning, Big Data, Software Development, Platform Engineering, Ethics

B. Tech in Computer Science and Engineering, PES University, Bangalore (CGPA: 9.3/10)

2016 - 2020

Relevant coursework: Big Data, Cloud Computing, Image Processing, NLP, ML, Deep Learning, Social Network Analytics

Scholarships: Prof. M R Doreswamy Merit Scholarship (Perfect GPA), Prof. CNR Rao Merit Scholarship (Top 15% of the university), Scholarship America Merit Scholarship

Hackathons: Overall Winner & Audience Choice Award Winner, NTT Data All-India Hackathon (Code for Good)

WORK EXPERIENCE

Intuit Inc., Bangalore, India

Software Development Engineer

Jan 2020 - Present

- Designed a plugin, using React, for QuickBooks Online, allowing users to upload and tailor invoices, attracting over 10,000 users.
- Used RxJava to optimize the data ingestion process for the Quickbooks reports engine, using in-memory database operations, support for import of data from multiple resources, and making code execution reactive.
- Worked in the Global Identity Platform Team to pre-fill never-entered data using third party services. Was instrumental in implementation of an address widget and profile widget to minimise data redundancy and inconsistency, and pre-filling existing data.
- Designed and implemented a comparator tool using Javascript, to analyse the transition to a new microservice-based login flow for Quickbooks online.

NTT Data, Chennai, India

Research Intern, Deep Learning

Jun 2019 - Aug 2019

Built Random Forest Classifiers and Vanilla Neural Networks to predict acceptance or denial reason for an insurance claim for the Data Intelligence & AI Platform (HEURI). Achieved accuracies of over 90% on ~4 million records. Models were used in production.

RESEARCH AND PUBLICATIONS

Centre for Research in Healthcare, Bangalore

Capstone Project, Funded

Jan 2020 - Aug 2020

Implemented the first instance of a Capsule Network for breast cancer detection at Sri Shankara Cancer Hospital and Research (Karnataka's largest NGO Hospital), resulting in an F1 score of 0.86.

Centre for Cloud Computing & Big Data, Bangalore

Research Intern

Jun 2018 - Sept 2018

Designed an algorithm to keep a fraction of the disks on stand-by to reduce overall power consumption in OpenStack's object store while maintaining consistency and integrity of stored data.

Publication

A Framework to Capture the Shift in Dynamics of a Multi-phase Protest - A Case Study of Hong Kong Protest

Paper was published in the Springer LNNS (Lecture Notes in Network and Systems) series. Link to paper.

POSITIONS

Tech+Social Good @ PESU

Founder

Aug 2019 - Present

- Spearheading technical projects and other activities of the first Indian <u>TechShift</u> organization.
- Conducted hackathons and career fairs to encourage the development of technology for social good.

PES Debating Society

President

Jan 2019 - Jan 2020

Participated in over 20 debates, and won awards at prestigious tournaments such as BITS, IIT, and NLS.

Centre for Cloud Computing and Big Data

Teaching Assistant

Jan 2020 - May 2020

Designed assignments, conducted project seminars, and mentored student groups for the Cloud Computing and Big Data courses. PESU IO Subject Matter Expert Oct 2019 - Dec 2019

Taught the course "Algorithms in the Real World" to a class of 40 students, and mentored several projects.

ACADEMIC PROJECTS

Text Generator

Built a character-level RNN and Bi-Directional RNN with LSTM and Doc2Vec to generate text from novels.

Enhancing Social Recommendations (Independent Research)

Used Computer Vision (Places 365-CNN) for scene understanding, and NLP (topic modelling, tf-idf, graph-based keyword extraction using RaKUn, etc) to match people by both, their text bio and pictures. (This was a proof of concept)

Spark Cricket Score Predictor

Engineered an algorithm using Spark MLLib to predict the outcome of an IPL (Indian Premier League) cricket match, given data for the past 10 years, and the batter line-up.

Container orchestration system

Implemented a container orchestration system from scratch, using Node and AWS, which performs health checks, scale-up, scaledown, and load-balancing.

File System Implementation

Implemented a basic file system from scratch, supporting all common file system operations, in C.