

# Subhayu Chakravarty

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Passionate and agile technologist with eight years of experience in the technology behind institutional financial service. I am currently innovating and optimizing ML model building & data analytics solutions. Deeply interested in the data domain, I thrive in settings that involve actualizing outcomes from data potential for the benefit of all.

## CURRENT SKILLS

- Frontend : React, Angular 2.0, Google Web Toolkit, HTML5, CSS
- Backend: Flask, Django, MVC, Spring Boot, Spring Integration, TIBCO BusinessWorks
- Languages: Python, Java
- Python Libraries: TensorFlow, Keras, Statsmodels, Numpy, Pandas, Scikit Learn,
- Data: MS SQL Server, Apache Spark, Oracle, PostgreSQL, MySQL, SQLite3
- Build and Deploy: Google Cloud - App Engine, AWS EC2, Docker, OpenShift, Linux, Atlassian Bamboo (CI/CD)

## EDUCATION

The University of Texas at Austin Master of Science in Information Technology and Management **May 2020**  
GPA: 3.75  
Coursework Included: Cognitive Computing, Big Data & Distributed Programming, Emerging Technologies(IoT, Blockchain)  
IIT Kharagpur, India Bachelor of Technology, Manufacturing Science and Engineering **May 2014**

## WORK EXPERIENCE

Charles Schwab - *Senior Manager, Risk Analytics/Modeling*; Lone Tree, CO, USA **July 2020 - Present**  
Building enhancements and ML capabilities into model inventory for risk management. Involved in frontend and backend development for primary web application for model building and automated validation.  
Credit Lonnais Securities Asia (CLSA) - *Software Engineer, Reference Data*; Pune, India **January 2015 - April 2019**  
Development, optimization and enhancement of twelve Reference Data applications, collaboration on roadmap discussions and design decisions. Appointed Data Guardian and Product Liaison of suite of applications for having significant functional knowledge.

## PROFESSIONAL PROJECTS

ModelOps - *Charles Schwab - Manager, Risk Analytics* **January 2021 - Present**

- Collaboratively designed, architected and developed model validation automation backend for model building, hosting and performance analysis
- Enabled statistical preprocessing, time series regression, panel data algorithms and classification modeling in this framework

Enhanced Liquidity Pool - *CLSA - Sr. Backend Engineer/Designer* **July - September 2018**

- Collaboratively designed front-to-back architecture of system including its interaction mechanism with central data lake
- Enhanced Angular UI, implemented KeyCloak authentication with a Spring Boot backend, REST APIs and PostgreSQL database for new web-app hosted on OpenShift cloud

Tibco Retirement - *CLSA - Sr. Backend Engineer* **August - September 2018**

- Saved 0.5 million USD in annual license costs by decommissioning TIBCO and transforming legacy systems into data-centric, Microservices architecture
- Replaced eleven Tibco BusinessWorks applications with services using Spring/REST framework with a team of two

Fixed Income On-boarding - *CLSA - Business Analyst* **July - September 2017**

- Enabled a 5 million USD increase in commission for the firm post go-live and a smooth release by reconciling 2 gigabytes of client data between two data storage systems
- Received Team Award for Project Success

## DATA PROJECTS

Computer Vision Capstone - *Accenture and The University of Texas at Austin* **January - April 2020**

- Developing proof-of-concept applying machine vision to enhance campus safety by detecting hazardous objects on premises
- Applying human-centered design methods and machine learning models to build a scalable cloud solution

GoodBooks Recommender - *The University of Texas at Austin* **November 2019**

- Scraped Goodreads.com for reviews and metadata of top 100 NYTimes bestsellers of 2019
- Built book recommendation system based on desired attributes provided by user

Healthcare Data Analysis - *Humana-Mays Analytics Case Competition* **September - October 2019**

- Cleaned, labelled raw event data of 35,000 patients and engineered features to identify a specific addiction trend in patients
- Applied predictive models on the highly imbalanced dataset, tuned parameters to arrive at optimum ROC/AUC score

## LEADERSHIP EXPERIENCE

Client Reference Data Team - *CLSA - Functional Leader* **January 2017 - July 2017**

- Took charge of daily task reviews, scrum effort estimation and project assignment responsibilities
- Transitioned and guided seven freshers into team through training

## ADDITIONAL INFORMATION

Languages: English, Bengali, Hindi

Hobbies: Challenging hackathons with goals of helping people, playing the guitar and soccer, pencil-sketching and simulated stock trading