





Subhayu Chakravarty

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Tenacious and agile technologist with a decade of experience building complex systems behind institutional financial services. Currently orchestrating the evolution of what started as a PoC, an automated financial model validation system on the cloud. Immersed in the data domain, I thrive in settings where tangible outcomes from data potential benefits all.

CURRENT SKILLS

- Frontend: React, Angular 14.0, Google Web Toolkit, HTML5, CSS
- Backend: Flask, Django, .NET, Spring Boot
- Languages: Python, Java, C#
- Python Libraries: TensorFlow, Keras, Statsmodels, Numpy, Pandas, Scikit-learn, PyQt5, RPy2
- Data: MS SQL Server, Apache Spark, MySQL, SQLite3, Oracle, PostgreSQL
- Build and Deploy: Google Cloud Platform, AWS EC2, Docker, 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 enterprise model inventory system for risk management. Key contributor to frontend and backend development of challenger model building and automated validation framework on Google cloud.
Credit Lyonnais Securities Asia (CLSA) - Software Engineer; 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 system for model building, hosting and performance analysis
- Enabled statistical analyses, time series regression, panel data algorithms and classification modeling in this framework
- Planned migration of microservices to cloud and use of Big Query and generative AI models within this system

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

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

DATA PROJECTS

Quiz Generator - Project for research into Large Language Models **August 2023**

- Built capability to create Retrieval Augmented Generation system from any uploaded resources
- Enabled generation of quiz from documents and available on dash UI with export capabilities

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

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 specified 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

Certifications: Google Associate Cloud Engineer (2023)

Languages: English, Bengali, Hindi

Hobbies: Challenging hackathons with goals that help humanity, playing the guitar and soccer, pencil-sketching and simulated stock trading