

# Subhayu Chakravarty

s7chak@gmail.com  
303-902-8524  
linkedin.com/in/subhayuchakravarty  
Lone Tree, CO  
s7chak.github.io

Tenacious and agile technologist with a decade of experience in complex systems behind institutional financial services. Currently orchestrating the evolution of what started as a PoC, an automated 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 2.0, Google Web Toolkit, HTML5, CSS
- Backend: Flask, Django, .NET, Spring Boot
- Languages: Python, Java, C#
- Python Libraries: TensorFlow, Keras, Statsmodels, Numpy, Pandas, Scikit-learn, 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 model inventory for risk management. Involved in frontend and backend development for primary web application for model building and automated validation.

**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 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
- Received Team Award for Project Success

## 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