

Sambhav Shrestha

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EDUCATION

St. Joseph's College, Brooklyn, NY

BS in Computer Science & Mathematics, June 2022 (anticipated) | **GPA 4.0**

- Honors & Activities: Presidential Scholar, Peer Tutor, Honors Student, Delta Epsilon Sigma, Dean's list, SJC Squared
- Relevant Courses: Algorithms & Data Structures, Databases, Multivariable Calculus, Linear Algebra, Prob & Stats

SKILLS

Languages:	Python, R, Bash, JavaScript, C/C++, MySQL, PostgreSQL
Libraries and Frameworks:	PyTorch, TensorFlow, Pandas, Selenium, OpenCV, Django, React, Flask
Tools and Technologies:	Linux, Docker, GCP Compute, Kubernetes, AWS EC2

EXPERIENCE

Tarifica, Manhattan, NY

Software/Data Engineering Intern | July 2021 – Present

- Building and maintaining web-scrapers; creating new Django Models, APIs, and reporting tools to optimize server performance.
- Using PostgreSQL to manage and report data into the dashboard for visualization and analytics,
- Working on regression models and sentimental analysis using NLP to analyze value and forecast growth of products

Google Cloud

GCP Summer Bootcamp Student | July 2021 – Sep 2021

- Completed 5-course Coursera specialization focused in GCP Compute, Kubernetes, and App engine; deployed and managed VMs in cloud, set up load balancer, and created database in Cloud storage like Cloud SQL and BigQuery.
- Earned skill badges by completing set of challenges in ML/AI, Kubernetes, Data Analytics, and web development in cloud.

Microsoft Research, Manhattan, NY

Data Science Student Researcher | June 2021 – July 2021

- One of 12 students selected and mentored by the leading scientists at MSR NYC to research various topics in Applied Statistics and Data Science
- Coded bash scripts/pipelines in Linux to obtain, inspect and wrangle data for firsthand analysis.
- Researched different papers and performed replication, and extension; analyzed the statistical significance of results.
- Used R packages (tidyverse, ggplot) to work on projects involving exploratory data analysis and statistical inferences; learned machine learning algorithms, model complexities and cross-validation for assessment and fitting.

JP Morgan & Chase, Online

Software Engineering Virtual Experience | Jun 2020 – July 2020

- Used React to build data visualization in frontend to observe the ratio of two stocks and trigger alerts
- Managed JP Morgan's self-built framework, Perspective, to stream analytics and data via Web Assembly

PROJECTS

Replication and Extension of article "Police Officer Complaints":

- Reproduced the results and graphs obtained in the article by using Bash to wrangle data and R to perform analysis and visualization; Further researched into the data to extend interesting findings and published it into shiny web app.

Stock Price Prediction using LSTM (Pandas, TensorFlow, Matplotlib):

- Designed a deep recurrent neural network (RNN) that uses LSTM approach to model the data of different stocks obtained from alphavantage API; performed a time-series analysis to clean data; obtained an accuracy of 80%.

Twitter Sentiment Analysis in R using rtweet (dplyr, tidyverse, ggplot):

- Developed a visualization dashboard that fetches tweets based on keyword and analyzes sentiment using lexicon approach; added extra feature that analyzes user input text by using text mining and feature extraction and deployed in shiny.

Hand Drawn Digit Recognition App (JavaScript, TensorFlow, OpenCV, Flask):

- Created a flask app that predicts the hand-drawn digits with confidence percentage; developed deep convolutional neural network (CNN) achieving the accuracy of ~98%; used Ajax to asynchronously send data and deployed it in Heroku.

Other Projects:

- Notebook Android App, Facial key-points Detection, Credit card Fraud Detection, Minesweeper AI, Tic-tac-toe Bot.