SAJAL CHANDRA

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EDUCATION

UNIVERSITY OF ILLINOIS CHICAGO   **Expected May 2024**
MASTER OF SCIENCE IN COMPUTER SCIENCE | **GPA: 4.0/4.0**
RELEVANT COURSEWORK: NLP, COMPUTER ALGORITHMS, ADVANCED MACHINE LEARNING, BIG DATA MINING, VISUAL ANALYTICS

GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY   **Aug 2017 – Jun 2021**
BACHELOR OF TECHNOLOGY (ELECTRONICS AND COMMUNICATION ENGINEERING) | **GPA: 8.38/10**
RELEVANT COURSEWORK: DATA STRUCTURES, DATABASE MANAGEMENT SYSTEMS

EXPERIENCE

SOFTWARE DEVELOPER INTERN | Egencia   **May 2023 – Aug 2023**
- Engineered an end-to-end data pipeline, streamlining internal data manipulation for business intelligence by integrating user-friendly web forms and fortified Snowflake connectivity.
- Created reusable template for upcoming internal web apps, streamlining development processes.
- Deployed Flask app on AWS EKS, enabling secure CRUD operations, and established Jenkins-based CI/CD pipeline.
- Pioneered project, driving design choices through stakeholder collaboration, resulting in a foundational workflow for structured data manipulation.

SOFTWARE DEVELOPER | Tata Consultancy Services   **Aug 2021 – Aug 2022**
- Enhanced the performance and resiliency of modernized Pharmacy Management Software for a leading US-based Pharmaceutical Corporation.
- Identified & resolved 20% of detected codebase bugs by implementing new features, refactoring code, & unit tests.
- Executed JUnit test scripts to maintain a quality assurance coverage of 85% and ensure software reliability.
- Supervised on-boarding process for 15 new hires, resulting in 33% faster onboarding times.

PROJECTS

AGE AND GENDER CLASSIFIER [Github]
- Led a team of 3 members to develop a Haar-cascade and CNN based Age and Gender classifier with GUI
- Improved classification accuracy from 60% to 85%, with the classifier working on still images, videos, and live feeds

LONG FORM QUESTION-ANSWERING
- Created a LSTM based Seq2Seq model and fine tuned it for text summarization
- Introduced my model into a question answering pipeline and achieved BLEU score of 0.633
- Reduced training and evaluation times by 40%

CHICAGO TRAFFIC CRASHES ANALYSIS [Github] [Website]
- Developed a website visualizing traffic crashes data in Chicago for 2021 using JavaScript, HTML, and CSS
- Implemented EDA tool for stakeholders by plotting crash data on interactive spatial & temporal plots

FIFA WORLD CUP CHATBOT [Github]
- Developed a chatbot using NLTK that analyses user sentiment towards FIFA World Cup 2022
- Classified user sentiment using a Multilayer Perceptron, Support Vector Classifier, and Logistic Regressor
- Deployed the chatbot on a ReactApp

RICHTER'S PREDICTOR: MODELLING EARTHQUAKE DAMAGE [Github]
- Grouped housing structures based on their susceptibility to earthquake damage using a classification model
- Achieved a micro-averaged F1 score of 0.7501
- Ranked in the Top 2% of over 5600 submissions in an online competition with this model

INTERPRETING ALGORITHMIC UNCERTAINTY
- Studied impact of Epistemic and Aleatoric uncertainties on Equalized Opportunity Difference
- Built and trained neural networks to quantify uncertainties

SKILLS

LANGUAGES
Python, Go, JavaScript, Java, HTML, CSS, MySQL, R, Bash, Shell, Groovy, Docker, YAML

TECHNOLOGIES AND FRAMEWORKS
Flask, SpringBoot, Maven, JIRA, DevOps, Jupyter, Git, Docker, Postman, Kubernetes, PySpark, React, jQuery, Bootstrap, ReactJS, REST API

LIBRARIES
JUnit, Mockito, Pandas, Seaborn, Numpy, Matplotlib, NLTK, OpenCV, Scikit Learn, Regex, Geopandas, Beautiful Soup, D3.js, Gin, Gorm, Pyspark, Pygame, Pickle, mtcnn, pafy, PySimpleGUIQt, Gorilla/Mux, Tensorflow