SAMUJJWAAL DEY

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EDUCATION

University of Illinois at Chicago, Illinois — Expected May 2021
Master of Science in Computer Science — GPA: 3.42/4

University of Mumbai (VESIT), India — Jul 2015 – Jun 2019
Bachelor of Engineering in Computer Engineering — CGPA: 8.40/10

TECHNICAL SKILLS

Proficient: Python, Java, HTML, CSS, JavaScript, NumPy, Pandas, BeautifulSoup, sklearn, Tkinter, D3.js, Three.js, SQL, Git, Azure ML Studio, Jupyter

Familiar: C++, R, Octave, Scala, PHP, Bootstrap, JSON, PowerBI, LabVIEW, OpenCV, Flask, Shiny, Android

ACADEMIC PROJECTS

Typesafe Github GraphQL Frontend (Scala, GraphQL, sbt) https://git.io/JJhpZ
A type-safe read-only frontend to build GitHub's GraphQL queries.

Web Search Engine on UIC Domain (Python, nltk, beautifulsoup4, Jupyter) https://git.io/Jf2bm
Web search engine to retrieve most relevant webpages for a user search query, from webpages crawled on the UIC domain

Design Pattern Generator IntelliJ plugin (Java, JavaPoet, Gradle, IntelliJ Platform SDK) https://git.io/JfO6O
Object-oriented design and implementation of an IntelliJ Plugin for a Design Pattern Code Generator with a type name clash checking functionality

Vector Space Retrieval Model on Cranfield corpus (Python, nltk, Jupyter) https://git.io/JfO6R
Implementing a Vector Space Retrieval Model using TF-IDF and cosine similarity

Spam E-mail Classifier (Python, sklearn, matplotlib, Jupyter) https://git.io/JfO6u
Machine Learning Model to classify e-mails as spam or non-spam

Visualizing Radiation Therapy Plan Data (Javascript, HTML, Three.js, D3.js) https://git.io/JfO6a
Identifying Similarities and Dissimilarities between UIC/MDACC RT Plan Data

US Election Data Exploration and Modelling (Python, sklearn, matplotlib, Jupyter) https://git.io/JfO6z
Data Modelling on 2016 US Election Data and US Demographic Data. Creating regression, classification, and clustering models.

Visualizing fluid-particle flow (Javascript, HTML, Three.js, D3.js) https://git.io/JfO62
Visualizing a computational fluid flow dataset from the San Diego Supercomputing Center

INTERNSHIP EXPERIENCE

Summer Project Trainee, Bhabha Atomic Research Centre, India — **May 2018 – Jul 2018**
Radiation and Photochemistry Division

- Developed a Data Acquisition system using LabVIEW for a Low-Temperature Measurement setup
- Converted existing LabWindows code for nano voltmeter, milliammeter and current source into LabVIEW code to make operations faster and help scientists record more precise observations

Junior Data Analyst Intern, Nuclei Technologies, India — **Jun 2016 – Jul 2016**

- Received hands-on training on R and studied various data collection and data preparation methods
- Researched how to develop a stock market prediction model on R

RESEARCH EXPERIENCE

- **Catchment Control and Water Supply Management** under Prof. Richard Joseph — **Jul 2018 – Apr 2019**
  - Developed an Azure ML model to predict if a region is a drought-prone area using its climatic parameters
  - Performed a comparative study of classification algorithms to determine the most optimal for our use case
  - Presented IEEE paper "Water Catchment Control and Management" at ICICT 2018 (not published yet)
- **Electricity Consumption and Home Automation** under Prof. Dr. Mrs. Gresha Bhatia — **Aug 2017 – Jan 2019**
  - Designed a web application to help users monitor their domestic electricity consumption to check against faulty power bills and power thefts in India
  - Published Springer paper "Interactive Electricity Consumption System" at SSIC 2019

GRANTS RECEIVED

- *AI for Earth Azure Compute Grant* worth $15,000 awarded by Microsoft & National Geographic for the project "Water Supply Management and Catchment Control in Drought Prone Regions of Rural India"
- *UGC Minor Research Grant* awarded by the University of Mumbai for the project "Electricity Consumption and Home Automation" under domains of Machine Learning and Internet of Things