

SAMUJWAAL DEY

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EDUCATION

University of Illinois at Chicago, Illinois

Master of Science in Computer Science

Expected May 2021

GPA: 3.42/4

University of Mumbai (VESIT), India

Bachelor of Engineering in Computer Engineering

Jul 2015 – Jun 2019

CGPA: 8.40/10

TECHNICAL SKILLS

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

Familiar: C++, R, PHP, Scala, Bootstrap, LabVIEW

ACADEMIC PROJECTS

Web Search Engine on UIC Domain (Python, nltk, beautifulsoup4, Jupyter)

<https://git.io/lf2bm>

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/lf060>

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/lf06R>

Implementing a Vector Space Retrieval Model using TF-IDF and cosine similarity

Spam E-mail Classifier (Python, sklearn, matplotlib, Jupyter)

<https://git.io/lf06u>

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/lf06a>

Identifying Similarities and Dissimilarities between UIC/MDACC RT Plan Data

US Election Data Exploration and Modelling (Python, sklearn, matplotlib, Jupyter)

<https://git.io/lf06z>

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/lf062>

Visualizing a computational fluid flow dataset from the San Diego Supercomputing Center

Water Catchment Control (Python, Folium, Flask, Azure ML Studio)

<https://git.io/lf06V>

A system to predict if a region is a drought-prone area using its climatic parameters from APIs

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

• **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](#)

• **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)

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