## Sagar Ghimire

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#### **EDUCATION**

Claflin University

Expected Graduation Date: May 2021

Bachelor of Computer Science (Minor in Mathematics and Cyber Security) | GPA: 3.98 / 4.0

Completed Courses: Software Engineering | Data Structure and Algorithm | Linear Algebra | Calculus-III | Data Analysis

#### PROFESSIONAL EXPERIENCES

### Data Science Intern, Dominion Energy, Virginia

November 2020 - Present

- Extracting, loading, formatting data, and annotating image to build models for predicting anomalies in the solar cell
- Analyzing and preparing thermal image data to predict anomalies in solar cell present in the solar farm

#### Innovation Team Research Intern, Dominion Energy, Columbia, South Carolina

- Recommended strategies and methodologies on how Dominion Energy could adopt Building Integrated Photo Voltaic technology to improve the usage of solar energy
- Researched solar cells integration process and required materials for Photo Voltaic cells
- Collaborated with innovation team interns to discuss, understand, and document the optimal design, location, and installation of Building Integrated Photo Voltaic system

# Research Intern, Career Pathways Initiatives, Orangeburg, South Carolina

- Performed research on how Blockchain technology can be designed to perform covert communication by applying Steganographic or Cryptographic techniques
- Examined various encryption algorithms (RSA and AES) for big data, Blockchain architecture, and various consensus mechanisms such as Proof of Work and Proof of Stake

### Undergraduate Research Intern, School of Computer Science, Claflin University

May 2019 - August 2019

- Designed an algorithm to solve the single variable equation using Newton-Raphson, Secant, and Regula-Falsi method
- Analyzed the complexity of implementing the designed algorithm for different numerical methods in Maple and Excel
- Wrote and submitted the paper to International Conference on Technology in Collegiate Mathematics for publication

### PERSONAL PROJECTS

#### **Diabetes Prediction** (https://predictdiabetis.pythonanywhere.com)

- Developed a machine learning model to predict the probabilities of having diabetes in person
- Applied Random Forest Classifier algorithm and achieved an accuracy score of 0.793 applying hyperparameter tuning using randomized search cross validation method
- Created web application for this project using Django and Python

### Titanic Survival Prediction (https://www.kaggle.com/ghsagar/titanic-survival-with-feature-engineering?scriptVersionId=37167152)

- Developed a machine learning model to predict survival chances of passengers who travelled on Titanic ship
- Utilized Sklearn, Pandas, and Numpy libraries for data pre-processing and visualized using data exploratory techniques
- Achieved accuracy score of 0.77511 applying Random Forest machine learning algorithm

# Website Development (https://github.com/ghsagar/steamlogic)

Secretary, Claflin's Global Student Organization

Carolina Clusters' Creative Project Award

President's Gold Medallion, Claflin

- Worked with group of three leading back-end development using Django framework to develop a website focused on increasing diversity in technology fields among African American students
- Connected MySOL for database management and utilized GitHub for team collaboration and deployment

#### LEADERSHIP AND AWARDS

Vice President, National Society of Black Engineers, Claflin chapter

August 2019 - Present

July 2019 - Present

**April 2019** 

March 2019

2017 - present

Presidential Scholar, ACT Honors College, Claflin University

## TECHNICAL SKILLS:

- Languages: Python, Java, JavaScript, CSS, HTML5, SQL, PostgreSQL, and Maple
- Skills: Data Extract, Load, and Transfer, Machine Learning, Natural Language Processing, and Data Analysis
- Tools: Django, Git/ GitHub, Google Collaboratory, Jupyter Notebooks, cPanel & WHM, and VestaCP