

# Franklin CD Samuel

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## EDUCATION

**George Mason University**, Fairfax, US

Aug 2022 – May 2024

*Master in Computer and Information Science*

GPA: 3.48/4.00

- Relevant coursework: Web development , Algorithms, DBMS , Information Security and Machine Learning

**Vellore Institute of Technology**, Vellore, India

Jul 2018 – Jun 2022

*Bachelor of Technology in Computer Science and Engineering Specialization in Bio-informatics*

GPA: 3.7/4.00

- Relevant coursework: UI/UX , Artificial Intelligence, Lean Start-up Mgmt and Human Computer Interaction

## SKILLS

**Languages:** C++, C, python, JavaScript, SQL, Java, HTML, CSS, Go, PHP

**Tools::** Visual Studio, Jupyter, MySQL, Django, React, MERN stack, Scikit, git, AWS, Google Cloud, Google Collab, TensorFlow, Linux and PyTorch

**Software skills:** Software Development in React, Node.js, Flask, JUnit, Drupal, WordPress, Material-UI, Visual Studio, Jupyter, MySQL, MongoDB, Django, MERN stack, Scikit, git, AWS-EC2, Google Cloud, Google collab, Tensorflow, and PyTorch

**Coding Skills:-** Coding, Web development, debugging, Algorithms, Machine Learning, Artificial Intelligence

## PROFESSIONAL EXPERIENCE

**Housing and Residence Life**, George Mason University, Fairfax, US

Jul 2023 – Present

*Web Developer and Designer(Drupal, Wordpress, Dubbot and Wrike)*

[HRL](#) at GMU offers an inclusive, community-centric living experience that supports student success and personal growth.

- Led a cross-functional team in the redesign and continuous improvement of web pages, resulting in 50% improvement in overall user experience satisfaction and a 40% increase in website conversion rate and total users to 200 K
- Identified the need for accessibility improvements on web pages to align with industry standards ,maintained WCAG-compliant guidelines across web pages ensuring industry standard user accessibility . Reduced issues by 85%
- Initiated and executed the design and introduction of groundbreaking web functionalities, rigorously assessed through user testing procedures; the ensuing enhancements markedly amplified annual revenue by \$500k

**Central Water Park Research Park Station**, Pune, India

Apr 2021 – Dec 2021

*Machine Learning Research Intern(Tensorflow and QGIS)*

CWPRS serves as a premier research and development facility dedicated to advancing water resource management and technology

- Led the comprehensive planning and compilation of an new datasets. Gathering, data cleaning and pre-processing over 100K empirical data points . Created data pipelines to improve data quality resulting in 30% data accuracy
- Collaborated with Industrial Experts to devise ML algorithms such as DNN with ADABOOST ,SVM and Random forest with XGBoost to predict the depth of shallow water. Achieved a notable 15% improve in accuracy with the optimal solution
- Presented findings and insights to the stake holder . The optimal model produced a staggering accuracy of 85% and also implemented AGILE Methodologies to improve development time by 25%

**National Institute of Electronics and Information** , Chennai, India

Jan 2022 – Mar 2022

*Machine Learning Research Intern(Pytorch and Git)*

NIELIT is a leading institution dedicated to advancing research, education, and innovation in electronics and information technology.

- Presented with a challenge to create and optimise Cycle Generative Adversarial Networks to enhance style transfer application . The Frechet Inception Distance was less than 10 percent
- Led thorough model evaluations, identifying and addressing performance bottlenecks to achieve a 90% success rate in GAN performance
- Pioneered the integration of spectral normalization and gradient penalty techniques into GAN training procedures, elevating generation quality by 20% , establishing a new benchmark for AI model stability

## PROJECTS & RESEARCH

### Water Depth Estimation Using Sentinel-2 Satellites for Shallow Water

- Directed the research and implementation of advanced algorithm's, integrating SVMs and Deep Neural Networks to estimate shallow water depths from Sentinel-2 Satellite image bands achieving more than 90% accuracy

### Covid and Pneumonia Detection using X-ray Image and CNN

- COVID and Pneumonia [detection model](#) developed on Tensorflow and composed on Django framework and Flask backend with 98% accuracy

### Research Paper Published in Springer

- Orchestrated a pioneering initiative centered on data analysis and interpretation in IoT-based systems for critical medical services and healthcare applications, resulting in a 50% enhancement in data accuracy

## LEADERSHIP

**Human Capital & Fundraising Fellow**, Make A Difference

Sep 2020 – Nov 2022

- Led, interviewed and Recruited a group of 250+ people in the city of Vellore community as a fundraising city head for an [NGO](#) and Raised more than 15 million INR all over the country