**CURRICULUM VITAE OF RAGHUL G**

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| Position Title and No. | Technology Analyst I Intern |
| Name of Expert: | Raghul G |
| Date of Birth: | 09-Sept-2002 |
| Country of Citizenship | India |

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| **EDUCATION** | | | |
| S. No | Degrees / Diplomas | Institutions | Year |
| 01 | Bachelor of Technology  (Electronics & Tele-Communication) | St. Joseph’s Institute of Technology, Chennai, India | 2020-2024 |
| 02 | Higher Secondary XIIth Equivalent | AV Meiyappan Matriculation Higher Secondary School | 2019-2020 |

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| **LANGUAGE SKILLS** | | | | |
| S. No | Language | Speak | Read | Write |
| 1 | English | Excellent | Excellent | Excellent |
| 2 | Tamil | Excellent | Excellent | Excellent |

| **EXPERT’S CONTACT INFORMATION** | |
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| Contact | raghul.g@niograph.com | +91 – 7577948377 |
| Certification | “I, certify that to the best of my knowledge and belief, this CV correctly describes myself, my qualifications, and my experience, and I am available, as and when necessary, to undertake the assignment in case of an award. I understand that any misstatement or misrepresentation described herein may lead to my disqualification or dismissal by the Client”. **– Raghul G** |
| Date | 15th February 2023 |

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| **SKILLS AND EXPERTISE WORD CLOUD** | |
| Data | Program & Product |
| Data Management | Tensorflow |
| AI Strategy | Keras |
| Data Science | Scikit-learn |
| Data Analytics | Pytorch |
| Cloud Architecture | MYSQL |
| Machine Learning |  |
| Data Visualization |  |
| Data Science Models |  |
| Python |  |
| AWS |  |
| Java |  |
| R |  |

| **CERTIFICATIONS AND PROFESSIONAL QUALIFICATIONS** | | |
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| S. No | Certification / Qualification | Description |
| 01 | Kaggle - Feature Engineering | Certified |
| 02 | Kaggle – Introduction to Machine Learning | Certified |
| 03 | Kaggle – Introduction to SQL | Certified |
| 04 | Kaggle – Intermediate Machine Learning | Certified |
| 05 | AWS Educate: Deep Racer | Certified |
| 06 | AWS Educate: Machine Learning Primer | Certified |
| 07 | AWS Training and Certifications: 20 AWS Services | Certified |
| 08 | SuperDataScience – R Programming | Certified |
| 09 | SuperDataScience – Artificial Intelligence – A-Z | Certified |
| 10 | Spoken Tutorial – C Training | Certified |
| 11 | Spoken Tutorial – Java Training | Certified |
| 12 | Simplilearn: Introduction to Artificial Intelligence | Certified |
| 13 | Simplilearn: Image Recognition Basics | Certified |
| 14 | Simplilearn: NLP and Text Mining | Certified |
| 15 | Simplilearn: GIT training | Certified |
| 16 | FreeCodeCamp – Responsive Web Designing | Certified |
| 17 | AWS Educate Quest: AWS Cloud Practitioner | Certified |
| 18 | Microsoft Azure Data Fundamentals | Trained |
| 19 | Introduction to BigData – Hadoop, Spark, Presto, etc. | Training |
| 20 | Microsoft Azure Developer Associate | Trained |
| 21 | NPTEL: Introduction to Machine Learning | Trained |
| 22 | FreeCodeCamp – Machine Learning Fundamentals | Trained |

| **TECHNOLOGY STACK EXPERTISE** | | |
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| S. No | Categories | Tools & Technologies |
| 1 | Databases | MySQL |
| 4 | Languages | Python, R, Java, C |
| 6 | Data Analytics | MatPlotLib, NumPy, Pandas, Scikit-learn, Plotlly |
| 7 | Data Science | Keras, TensorFlow, Amazon Sage Maker, PyTorch, |
| 8 | Cloud Platform | AWS Public Cloud |

| **EMPLOYMENT RECORD RELEVANT TO THE ASSIGNMENT** | | | | |
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| S. No | Period | Employing organization and your title/position. Contact info for references | Country | Summary of activities performed relevant to the Assignment |
| 01 | Feb 2023 - Ongoing | Data Science Analyst | Technology Analyst I Intern  Niograph Inc. | India | In **Data Intelligence Domain** in **Niograph** |
| 02 | June 2022 – Sept 2022 | Document Design Intern  Stigmata Techno Solutions | India | Role is to design Documents for **L&T MSI Project** undergone by **Stigmata Techno Solutions.** Designed the document by scaling up the project from scratch to the core.  The main motive of the MSI Project is to transform **cost centric model to profit centric mode**l. All the domains namely **Billing Calculations, Cross Booking, Intended Audience, Masters**, and etc. has been covered. Drafted various UML Diagrams for domains namely **Class Diagram, Use Case Diagram, Activity Diagram,** and etc. Created relationships to the tables by connecting to their virtual machines and matched the **foreign keys** present in the table.  Used **Data Analytics tools** to visualize charts and graphs for each and every domains in the project. |
| 03 | April 2022 – May 2022 | Machine Learning Intern  Stigmata Techno Solutions | India | Task is to detect the **false AWS Keys** present in the repository which has the same features as the real one.  **Lead the Intern Team** and provided many effective resources in ML streams  Tech Stacks used are **Python, Tensorflow, Scikit-learn, matplotlib, numpy, Plotly** |
| 04 | Feb 2022 – May 2022 | Data Science Intern  AP3 Solutions | India | **Lead the Intern team** group of 6 where the main aim is to deliver projects based on **Satellite Imagery research and Product Development.**  Provided that I submitted research papers for various journals namely **IESEE 2022, ICAIS 2022,** and more, and moved the research papers to **IEEE Explore, Journals of Imaging**, and etc.  Tech Stacks used are **Image Segmentation, Image Classification, Python, Matplotlib, Tensorflow, Pytorch, and etc,** |
| 05 | July 2003 – July 2007 | Software Developer, Freelancer, Multiple Projects | India | Taken up development assignments and developed **Machine learning and Deep Learning models** to the clients. Used **Python, Tensorflow, Keras, Pytorch and Data Visualization Techniques like matplotlib, plotly** and more. |

| **ADEQUACY FOR THE ASSIGNMENT** | | |
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| **Project:** | | **MSI Project (Management Information System)** |
| **Client:** | | Laursen and Tourbo Private Limited |
| **Year:** | | Sep 2022 |
| **Location:** | | Chennai, India |
| **Designation:** | | Document Designer |
| **Main Project Features** –  The main motive of the MSI Project is to transform cost centric model to profit centric model. All the domains namely Billing Calculations, Cross Booking, Intended Audience, Masters, and etc. has been covered. **Activities performed** –   * Role is to design Documents for **L&T MSI Project** undergone by **Stigmata Techno Solutions.** * Drafted various UML Diagrams for domains namely **Class Diagram, Use Case Diagram, Activity Diagram,** and etc. * Created relationships to the tables by connecting to their virtual machines and matched the **foreign keys** present in the table. * Used **Data Analytics tools** to visualize charts and graphs for each and every domains in the project. | | |
| **Project:** | | **False AWS Key Detection** |
| **Client:** | | Stigmata Techno Solutions |
| **Year:** | | April 2022 – May 2022 |
| **Location:** | | Chennai, India |
| **Designation:** | | Machine Learning Intern |
| **Main Project Features** –  The task is to detect the **false AWS Keys** present in the repository which has the same features as the real one. I developed a prototype that can detect the false AWS Keys by detecting their features of it from the real ones. AWS keys used here are mainly for banking transactions and money laundering. This prototype will act as a barrier to the false AWS Key present in the repository of keys.  **Activities performed** –   * **Lead the Intern Team** and provided many effective resources in ML streams. * Detected the AWS False keys which have the same features as the real ones. Stated as a two-class classification Model - framed **Logistic Regression** for that, and achieved **75% of accuracy**. * Then tried **Long Short Term Memory (LSTM) with a Natural Language toolkit** to achieve accuracy up to 95% of the prototype. * Developed a prototype that detects **70% to 80% percent** of False AWS Key correctly with some tight approximation. The final accuracy calculated was **91 percent.** | | |
| **Project:** | | **Object Detection in Satellite Imagery** |
| **Client:** | | AP-3 Solutions |
| **Year:** | | Feb 2022 – May 2022 |
| **Location:** | | Chennai, India |
| **Designation:** | | DataScience Intern |
| **Main Project Features** –  Developed a Deep Learning model which can detect objects present in Satellite Imagery by using **RCNN with RPN Layers.** Had direct access to the Satellite Imagery dataset from **GEE,** and **Sentinel 2A dataset** from **European Space Agency**.  **Activities performed** –   * Worked on **Satellite Imagery Processing** to 4 detect objects namely **Forests, Water, Buildings, and Empty Land** * **Led the Intern team** which led to an **80% of improvement** in prototype and research * Provided that I submitted research papers for various journals namely **IESEE 2022, ICAIS 2022,** and more, and moved the research papers to **IEEE Explore, Journals of Imaging**, and etc. * Developed a model using **Faster RCNN** - one of the advanced formats of **CNN with RPN(Regional**   **Proposal Network**). Achieved greater accuracy up to **80%** for finding objects in the images. | | |
| **Project:** | **Power Prediction in Windmills and Power Mining** | |
| **Client:** | Stigmata Techno Solutions | |
| **Year:** | Dec 2022 | |
| **Location:** | Chennai, India | |
| **Designation:** | Freelance | |
| **Main Project Features** –  As a freelancer, my task is to predict the future power based on the hyperparameters given. Stigmata needs total of 6 models (3ML Regression Models, 3DL Regression Models) namely, Random Forest, SVR, Linear Regression, DNN, XGBOOST, LSTM and Conjugation of LSTMs. As a machine learning freelancer, I have provided broad view of all hyperparameters present in it.  **Activities performed** –   * Constructed 6 Machine Learning Models for Power Prediction. * Produced Visualization Dashboards for better view of the futuristic values. * Implemented in real time to test the power of windmill from the power generated through our model. * Lead their Technical team for further clarifications. | | |