

# Immanuella Duke

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## SUMMARY

A data scientist excited about solving data-related problems in business. Harness data to make insightful decisions that increase profit and enhance business operations. Have previously developed predictions on data and implemented models that outperformed the previous system in accuracy and processing time by 50%, thereby cutting cost on proprietary software. Looking to work on team projects that add value by drawing insights from digital information to make decisions.

## EDUCATION

|  |                                |
|--|--------------------------------|
| <b>Carnegie Mellon University</b> - Rwanda                             | Jul 2019 – Jun 2021 (Expected) |
| Master of Science in Information Technology (Applied Machine Learning) |                                |
| <b>Ashesi University</b> - Ghana                                       | Sep 2015 – Jun 2019            |
| Bachelor of Science in Computer Science                                |                                |

## WORK EXPERIENCE

|  |                     |
|--|---------------------|
| <b>Data Science Consultant</b> , Commercial International Bank – Egypt   | Aug 2020 – Present  |
| <ul style="list-style-type: none"><li>Reduced customer call waiting time and advised business team on hiring by developing a time-series forecasting model to predict incoming calls on an hourly, four-weekly, and three-monthly forecast level</li><li>Generated math equations to model incoming calls in different periods to show demand peaks and inform business decisions</li></ul>                              |                     |
| <b>Teaching Assistant</b> , Carnegie Mellon University – Rwanda  | Aug 2020 – Present  |
| <ul style="list-style-type: none"><li>Coordinated a computer programming class of 26 students by explaining programming concepts, grading course work, and leading problem-solving lab sessions</li></ul>  |                     |
| <b>Machine Learning Consultant</b> , Goodyear Tire and Rubber Company – United States  | May 2019 – Jul 2019 |
| <ul style="list-style-type: none"><li>Produced best features from large datasets for a machine learning business problem by implementing robust algorithms using Python</li><li>Lowered runtime within a simulator by 50% compared to a previous software by developing an ensemble of models</li><li>Delivered business value by developing data models with higher accuracies and by lowering software costs</li></ul> |                     |

## TECHNICAL PROJECT EXPERIENCE

|   |                    |
|---|--------------------|
| Machine Learning projects   | Sep 2019 – Present |
| <ul style="list-style-type: none"><li>Built and optimised linear and nonlinear machine learning models in Python using data such as <i>titanic dataset</i>, <i>electricity demand data</i>, <i>loan prediction</i>, <i>time-series forecasting</i> with weather datasets</li><li>Built different types of models including ARIMA, random forests, logistic regressions, SVMs, KNNs, boosting.</li><li>Completed detailed data exploration in these projects by plotting charts, measuring correlations</li><li>Designed clear and compelling visualisations to communicate project insights to a non-technical audience</li></ul> |                    |

## SKILLS

### Data Science/Machine Learning skills

- Data exploration, data analytics and data modelling with *large structured and semi-structured data*
- Development of ML pipelines and deployment on a cloud platform (**Microsoft Certified**: Azure Data Scientist Associate Certification)
- Data visualisations using Python and Tableau (LinkedIn learning certificate)
- Proficient in Java, Python (and ML libraries), SQL (intermediate), C/C++ (basic), Git for version control

## LEADERSHIP & EXTRA-CURRICULAR ACTIVITIES

|   |                    |
|---|--------------------|
| <b>Carnegie Mellon University</b> – Rwanda  | Dec 2019 – Present |
| <b>Women in Tech President</b>  |                    |
| <ul style="list-style-type: none"><li>Empowered CMU women towards professional development by organising career development programmes such as leadership and community workshops</li><li>Organised outreach programs in local high schools to inspire students to pursue careers in STEM</li></ul> |                    |
| <b>Carnegie Mellon University Guild</b> – Rwanda  | Dec 2019 – Present |
| <b>Academic Committee Member</b>  |                    |
| <ul style="list-style-type: none"><li>Enhanced the academic experiences of over 100 students by implementing a campus-wide mid-semester course evaluation and feedback system in the 2019-2020 academic year.</li></ul>   |                    |
| <b>TechyTalkers Toastmaster's club</b> – Rwanda   | Sep 2019 – Present |
| <b>Speaker</b>  |                    |
| <ul style="list-style-type: none"><li>Improved presentation skills by preparing and delivering five speeches before a large audience</li><li>Represented school at a public speaking competition at the regional level</li></ul>  |                    |

## ACHIEVEMENTS/AWARDS

- Selected as one of 3 students in a graduating class of 100 for the President's Award, given to a student who embodies scholarship, citizenship, and leadership during their time at the university
- Graduated Summa Cum Laude at Ashesi University
- Second place at the 2017 Ashesi Code Fair hackathon