

# Julien Nyambal

## Education

- 2019 - **PhD in Computer Science (Machine Learning)**, Supervisors: **Dr. Richard Klein & Prof. Turgay Celik**, *University of the Witwatersrand, Johannesburg, South Africa.*
- 2017 - 2018 **Master of Science in Computer Science (Machine Learning - Computer Vision)**, Supervisor: **Dr. Richard Klein**, *University of the Witwatersrand, Johannesburg, South Africa.*
- 2016 **Bachelor of Science (Honours) in Computer Science**, *University of the Witwatersrand*, Passed with Distinction, *Johannesburg, South Africa.*
- 2012 - 2014 **Bachelor of Science in Computer Science & Mathematics**, *University of Zululand, KwaDlangezwa, South Africa.*

## Professional Experience

- Dec 2019 – **Machine Learning Engineer**, *Entelect*, Johannesburg, South Africa.
- Present
- **Standard Bank: Corporate Investment Banking - FX Tips** (Sept 2020 - Present):
    - **Project Description:** Hinting or Recommend clients on potential Forex transactions (leads) they can make using their transactions across multiple financial systems.
    - **Responsibilities:**
      - Built from scratch and maintain Data Engineering end2end pipelines, from data ingestion to leads delivery,
      - Responsible for major decisions on the Design and Architecture of the solution,
      - Supported and advised on Machine Learning models to use in the process, and integration in the pipeline,
      - Mentored junior developers and guided data scientists throughout development
  - **Standard Bank: Corporate Investment Banking - Internal Credit Market Data** (April 2020 - Sept 2020):
    - **Project Description:** Help the Risk department of the bank to have an aggregated set of financial information on daily basis using trusted financial data sources.
    - **Responsibilities:**
      - Built from scratch a Python Backend system to seamlessly pull financial data and summarize currency pairs and valuable information out of them, API endpoints,
      - Build REST API to control the daily pulls and internal calculations,
      - Wrote from scratch mathematical calculations from C# to Python since using Python stack
  - **Standard Bank: Personal Business Banking - Internal Incident Reporting System RMP** (March 2020 - April 2020):
    - **Project Description:** Enhance incident reporting in the banks systems using NLP and GraphDB as opposed to relational DB. It reduced human interaction and faster ticket assignment.
    - **Responsibilities:**
      - Making incident reports in the back escalating quicker using NLP,
      - Assisted in building GraphDB representation of the hierarchy in the bank,
  - **Standard Bank: Personal Business Banking - Forex Customer Analysis** (Dec 2019 - Jan 2020):
    - **Project Description:** POC to try to predict currency pair value using time series and RNN.
    - **Responsibilities:**
      - Exploring and Analysing Forex data (time series) to draw potential pattern.

- Feb 2019 – **Part Time Lecturer**, *University of the Witwatersrand*, Johannesburg, South Africa.
- Jan 2021
- Introduction to Programming and Algorithms, COMS 1022A
  - Introduction to Data Structures And Algorithms, COMS 1017A
  - Computer Networks, COMS 2014A
- Apr 2018 – **Machine Learning Engineer**, *Retro Rabbit*, Johannesburg, South Africa.
- Dec 2019
- **Nedbank Avo by Nedbank** (Apr 2019 - Nov 2019):
    - **Project Description:** Customizing offering to clients based on the spending habits,
    - **Responsibilities:**
      - Performed Data Analysis and Exploration for client segmentation on credit cards transactional data on over one year,
      - Built and evaluated models for client segmentation,
      - Assisted in designing and building the PowerBI dashboard for better targeting of high spending clients in South Africa.
  - **Kalido** (April 2018 - April 2019):
    - **Project Description:** Enabling clients to hire or provide services based on skills and proximity.
    - **Responsibilities:**
      - Enhanced and supported the backend Machine Learning Architecture in place,
      - Machine Learning Model Investigation and selection for the solution,
      - Set up the AWS ECR environment to replace the current Hadoop Yarn Structure,
      - Increase clients matching with data analysis, AB testing and multi-model competitions (SageMaker was not yet available yet)
- Jun 2017 – **Teaching Assistant**, *University of Witwatersrand*, Johannesburg, South Africa.
- Apr 2018
- Marking assignments, tests, invigilations, tutoring, monitoring laboratory work
- Feb 2013 – **Teaching Assistant**, *University of Zululand*, Kwadlangezwa, South Africa.
- Nov 2014
- Marking assignments, tutoring, monitoring laboratory work

## Spoken Languages

**English**, *Professional Level*.

**French**, *Native*.

## Training & Certifications

- April 2021 **Microsoft Certified: Azure AI Fundamentals**, *Link to Certificate*, MS Azure.
- April 2021 **Microsoft Certified: Azure Data Fundamentals**, *Link to Certificate*, MS Azure.
- May 2020 **AWS Certified: Cloud Practitioner**, *V8YV563CMMQE13KG*, AWS.
- Sept 2020 **Microsoft Certified: Azure Fundamentals**, *Link to Certificate*, MS Azure.
- May 2020 **Introduction to Calculus**, *Link to Certificate*, Coursera.
- June 2017 **High Performance Computing Winter School at Stellenbosch University: C & Python programming for cluster computing.**, *Hosted by the CHPC*, CSIR.

## Talks

- March 2021 **Why GPUs for Machine Learning?**, *Internal Entelect Conference*, Johannesburg - South Africa.
- February 2020 **Deep Learning and its application: Johannesburg // AI - Machine Learning - Chatbots**, *Johannesburg // AI - Machine Learning - Chatbots*, Johannesburg - South Africa.
- May 2019 **Deep Learning and its application: Indaba X Ethiopia 2019**, *Deep learning IndabaX Ethiopia*, Wolaita Sodo University - Ethiopia.
- April 2019 **Machine Learning in Production: Indaba X Cameroon 2019**, *Deep learning IndabaX Cameroon*, L'Institut Français du Cameroun - Cameroon.
- Sept 2018 **Computer vision in your daily life: Retro Rabbit Conference**, *Retro Rabbit Conference*, Retro Rabbit Pretoria - South Africa.

April 2018 **Introduction to Machine Learning and Deep Learning: Indaba X Cameroon 2018**, *Deep learning IndabaX Centrafrique*, Ecole Nationale Supérieure Polytechnique de Yaoundé - Cameroon.

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## Academic Activities

- Nov. 2021 **Reviewer Black In AI**, *NEURIPS Workshop*.
- May 2021 **Reviewer Black In AI Research Grant**, *NEURIPS Workshop*.
- October 2020 **Reviewer Black In AI**, *NEURIPS Workshop*.
- October 2019 **Reviewer Black In AI**, *NEURIPS Workshop*.
- August 2019 **Tutor**, *Deep Learning Indaba, Kenya 2019*.
- April 2019 **Co-Organizer Deep learning IndabaX Cameroon**, *French Institute - Yaounde, Cameroon*.
- April 2018 **Co-Organizer Deep learning IndabaX Centrafrique**, *Ecole Nationale Supérieure Polytechnique de Yaoundé - Cameroon*.

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## Achievements I am Proud of

- 2017 **Inter-Bursary Support Programme Scholarship**, *Department of Science and Technology of South Africa - Council for Scientific and Industrial Research Merit Bursary*, DST - CSIR for my Master's at The University of the Witwatersrand., South Africa.
- 2017 **Won Machine Learning: A probabilistic Perspective by Kevin Murphy - 3rd Place**, *Poster presentation awarded (Automated Parking Space Detection) for innovative use of deep learning techniques.*, Deep Learning Indaba, South Africa.
- 2016 **Inter-Bursary Support Programme Scholarship**, *Department of Science and Technology of South Africa - Council for Scientific and Industrial Research Merit Bursary*, DST - CSIR for my Honours (4<sup>th</sup> year) at The University of the Witwatersrand., South Africa.
- 2016 **Best poster presentation under the Most Commercially Viable Project category when presenting my Honours (4<sup>th</sup> year) projects to companies for external assessment.**, *Most Commercially Viable Project - Computer Science*, ABSA - University of the Witwatersrand, South Africa.
- 2014 **Best 3rd year Computer Science student in Faculty of Science**, *Highest marks amongst of final year students on the department of Computer Science*, University of Zululand, South Africa.
- 2013 **2nd Best Software Engineering group Project Leader (SmartDrive)**, *Built and lead the second best working native android for my 2nd year group project. Receive an award of best project leader.*, University of Zululand, South Africa.
- 2012 **Merit Award Scholarship (Rector's fund)**, *Best achiever undergraduate student with annual average of above 80% in all modules*, University of Zululand, University of Zululand. South Africa

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## Extracurricular Activity

- 2012 - 2014 **Playing tennis for the University of Zululand Team (USSA Tournaments 2012 & 2013)**, *University of Zululand*, South Africa.
- 2014 **Elected Chairperson Computer Science Society**, *University of Zululand*, South Africa.
- 2014 **Elected Vice-Chairperson International Student Society**, *University of Zululand*, South Africa.
- 2016 - 2018 **Wits Tennis Player**, *University of the Witwatersrand*, South Africa.