Julien Nyambal

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Education

2019 - Present	**PhD in Computer Science (Machine Learning), Supervisor: Dr. Richard Klein**, *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

04/2018 – Present	**Software Developer, Data Scientist**, *Retro Rabbit*, Johannesburg, South Africa.

- **Automatic Parking Space Detection**: Improving the Honours project for automatic detection and comparison between Support Vector Machines (SVM) and Convolutional Neural Networks (CNN). We noticed that joining CNN as feature extractor and the SVM as classifier (linear or RBF) was slightly better than the CNN.
- **Kalido**: My role was to writes python scripts to enhance the current machine learning model responsible for matching two requests that where english user sentences. The management of all the requests where handle using Spark mostly. I implemeted the autoscaling infrastructure using ECS and leaving the images in ECR. That was to increase the faster ingestion of the request in production.
- **Market Edge 3.0**: I am currently in the data team and responsible for data analysis and data modeling. I deal with millions of transactional data that will help me to create user personas based on their spending habit using some machine learning algorithms like clustering.

02/2019 – Present	**Part Time Lecturer**, *University of the Witwatersrand*, Johannesburg, South Africa.

- Introduction to Programming and Algorithms
- Introduction to Data Structures And Algorithms

06/2017 – 04/2018	**Teaching Assistant**, *University of Witwatersrand*, Johannesburg, South Africa.

- Marking assignments, tests, invigilations, tutoring, monitoring laboratory work

02/2013 – 11/2014	**Teaching Assistant**, *University of Zululand*, Kwadlangezwa, South Africa.

- Marking assignments, tutoring, monitoring laboratory work

Skills

Languages	Python(fluent), SQL, Golang (intermediate), Java, Scala(basic), C++(basic), LaTeX, Shell/Bash (intermediate)
Frameworks	Keras ,Tensorflow, Git
OS	Ubuntu Linux(Prefered), Windows (intermediate), MacOS(basic)
Others	Docker, AWS(ECS, EC2), Kubernetes(basic), Hadoop(basic), Spark(Intermediate)

Awards

Rector's fund	**Merit Award**, *2012*.

Best achiever undergraduate student with annual average of above 80% in all modules, University of Zululand

Project Award	**2nd Best Software Engineering group Project Leader (SmartDrive)**, *2013*. Created and developed the second best working native android for my 2nd year group project. Receive an award of best project leader, University of Zululand
Faculty Award	**Best 3rd year Computer Science student in Faculty of Science**, *2014*. University of Zululand
DST-CSIR	**Inter-bursary Support Programme Scholarship**, *2016*.
ABSA	**Most Commercially Viable Project - Computer Science**, *2016*. Best poster presentation under the Most Commercially Viable Project category when presenting Honours projects to companies for external assessment. University of the Witwatersrand, Johannesburg
DST–CSIR	**Inter-bursary Support Programme Scholarship**, *2017*.
Deep Learning Indaba 2017	**Won 'Machine Learning: A probabilistic Perspective by Kevin Murphy'**, *September 2017*. Poster presentation awarded (Automated Parking Space Detection) for innovative use of deep learning techniques. University of the Witwatersrand, Johannesburg
8th PG X-Faculties Symposium	**Certificate of participation:**, *October 2017*. Flash talk and poster presentation about my Master's project, **Automated Parking Space Detection**. University of the Witwatersrand, Johannesburg
DST–CSIR	**Inter-bursary Support Programme Scholarship**, *2018*.

Publications

2017	**Nyambal, J. and Klein, R. (2017). Automated parking space detection using convolutional neural networks. In** *2017 Pattern Recognition Association of South Africa and Robotics and Mechatronics (PRASA-RobMech)***, pages 1–6. IEEE**.

Training

2017	**High Performance Computing Winter School at Stellenbosch University: C & Python programming for cluster computing.**, *Hosted by the CHPC*, CSIR.

Talks

4 April 2018	**Introduction to Machine Learning and Deep Learning**, *Deep learning IndabaX Centrafrique*, Ecole Nationale Supérieure Polytechnique de Yaoundé - Cameroon.
7 September 2018	**Computer vision in your daily life**, *Retro Rabbit Conference*, Retro Rabbit Pretoria - South Africa.
2 April 2019	**Machine Learning in Production**, *Deep learning IndabaX Cameroon*, L'Institut français du Cameroun - Cameroon.
3 May 2019	**Deep Learning and its application**, *Deep learning IndabaX Ethiopia*, Wolaita Sodo University - Ethiopia.

Extracurricular Activity

4 - 6 April 2018	**Co-Organizer Deep learning IndabaX Centrafrique**, *Ecole Nationale Supérieure Polytechnique de Yaoundé - Cameroon.*
2 - 4 April 2019	**Co-Organizer Deep learning IndabaX Cameroon**, *French Institute - Yaounde, Cameroon.*

References

1- **Dr. Richard Klein**, *Lecturer*.
   Institution: University of the Witwatersrand
   Unit: School of Computer Science and Applied Mathematics
   E-mail: Richard.Klein@wits.ac.za

2- **Dr. Pravesh Ranchod**, *Lecturer*.
   Institution: University of the Witwatersrand
   Unit: School of Computer Science and Applied Mathematics
   E-mail: Pravesh.Ranchod@wits.ac.za

3- **Prof. Turgay Celik**, *Professor*.
   Institution: University of the Witwatersrand
   Unit: School of Computer Science and Applied Mathematics
   E-mail: Turgay.Celik@wits.ac.za