

Julien Nyambal

Personal Information

DoB: **13 February 1989.**

Passport n° **0332231.**

Nationality **Cameroonian.**

Gender **Male.**

Education

- 2017 - 2018 **Master of Science in Computer Science (Machine Learning - Computer Vision)**, *University of the Witwatersrand, Johannesburg, South Africa* (Will graduate on the 4th July 2018).
- May 2017 **Bachelor of Science (Honours) in Computer Science**, *University of the Witwatersrand*, Passed with Distinction, *Johannesburg, South Africa.*
- March 2015 **Bachelor of Science in Computer Science & Mathematics**, *University of Zululand, Kwalangezwa, South Africa.*

Experience

- 04/2018 – **Software Developer**, *Retro Rabbit, Johannesburg, South Africa.*
- Present ○ Joined a team developing a Machine Learning algorithm for an android app. My role is to use make the backend more efficient using various technologies like Docker.
- 06/2017 – **Teaching Assistant**, *University of Witwatersrand, Johannesburg, South Africa.*
- 04/2018 ○ Marking assignments, tests, invigilations, tutoring, monitoring laboratory work
- 02/2013 – **Teaching Assistant**, *University of Zululand, Kwalangezwa, South Africa.*
- 11/2014 ○ Marking assignments, tutoring, monitoring laboratory work

Skills

- Languages Python(fluent), Octave/Matlab, Java, Scala(basic), C++(basic), L^AT_EX, Shell (Bash)
- Frameworks Caffe, Keras ,Tensorflow, Nvidia DiGITS, Git, Android Studio
- OS Ubuntu Linux(Preferred), Windows, MacOS(basic)
- Others Docker, AWS(ECS, EC2), Kubernetes(basic), Hadoop(basic), Spark(basic)

Projects

SmartDrive, *Android SDK, Java.*

SmartDrive has been designed to monitor the usage of the mobile phone while driving a car. SmartDrive blocks incoming SMSs and calls whilst the user is driving. SmartDrive has been built for Android devices. The system has been developed for android devices especially. I was the project leader, we delivered the system on time with minimal bugs.

Online (Indigenous) Health Forum, *Java, CSS, HTML, Liferay, Microsoft Translate API.*

Online (Indigenous) Health Forum, has been developed to bridge the gap of languages by allow people using different to exchange ideas using the forum as if they were all writing the same language. It was developed using the Liferay platform. In this project, my aim was to use Liferay framework to dynamically get the words and sentences from one side of the communication and translate it to the corresponding language on the other side. Java was mainly used with the Translator API from Microsoft.

Automated Parking Space Detection, *Python, Caffé (GPU), nvidia DiGits.*

Developed an Automated Parking Space Detection using some Computer Vision and Machine Learning techniques. I have used opencv with Python to predict the occupancy of some parking spot given a parking spot. I trained my dataset using Nvidia Digits under Caffé.

Automated Parking Space Detection, *Python, Keras, Octave/Matlab, Scikit-learn.*

Improving the Honours project for automatic detection and comparison between Support Vector Machines and Convolutional Neural Networks.

Awards

- Rector's fund **Merit Award, University of Zululand, 2012.**
Best achiever undergraduate student with annual average of above 80% in all modules.
University of Zululand
- Project **2nd Best Software Engineering group Project Leader (SmartDrive), 2013.**
Award 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 **Best 3rd year Computer Science student in Faculty of Science, 2014.**
Award 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 **Won 'Machine Learning: A probabilistic Perspective by Kevin Murphy', September 2017.**
Learning Poster presentation awarded (Automated Parking Space Detection) for innovative use of deep learning techniques.
Indaba 2017 University of the Witwatersrand, Johannesburg
- 8th PG **Certificate of participation:, October 2017.**
X-Faculties Flash talk and poster presentation about my Master's project, **Automated Parking Space Detection.**
Symposium 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, .*

Extracurricular Activity

- 2012 - 2014 **Playing tennis for the University of Zululand Team (USSA 2012 - USSA 2013)**, *University of Zululand, .*
- 2014 **Elected Chairperson Computer Science Society**, *University of Zululand, .*
- 2014 **Elected Vice-Chairperson International Student Society**, *University of Zululand, .*
- 2016-Present **Wits Tennis player**, *University of the Witwatersrand, .*
- 4 - 6 April 2018 **Co-Organizer Deep learning IndabaX Centrafrique**, *Ecole Nationale Supérieure Polytechnique de Yaoundé - 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. Pragasen Mudali**, *Senior Lecturer*.
Institution: University of Zululand
Unit: Department of Computer Science
E-mail: Mudalip@unizulu.ac.za
- 3- **Prof. Turgay Celik**, *Professor*.
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Unit: School of Computer Science and Applied Mathematics
E-mail: Turgay.Celik@wits.ac.za