

# Gildas Tagny Ngompé, PhD

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## experience

**Research Engineer** ESII, Laverune, France

Sep. 2019 – present

- Spoken Intent Recognition: a zero/few-shot multi-label text classification approach using fine-tuning a multi-lingual SBERT on a web scrapped domain-specific corpus, and modeling classification as NLI or as a cloze task using Pattern-Exploiting Training (PET); **prototyping** for CES 2021
- Big Data Advanced Analytics: architecting an efficient big database to store reception and waiting line event data for analytics; designing descriptive, diagnostic, predictive, and prescriptive analytics
- Speech Recognition based application to assist teaching hard of hearing students using LinTo

**Research Engineer** INRA (UMR AGAP), Montpellier, France

Jan. 2019 – Sep. 2019

- AgroLD: REST web services to add new web services, a KNETMAPS based visual exploration tool

**PhD Candidate** IMT Mines Alès (LGI2P), Nîmes & Alès, France

Dec. 2015 – Dec. 2018

- Empirical study of HMM, CRF, and BiLSTM to annotate sections and legal entities in judgments;
- A rule based approach to extract claims: requested and granted quanta, result polarity ;
- An adaptation of Gini-PLS analysis to identify the polarity of a court decision on a request;
- A learned distance for unsupervised clustering of court decisions to discover factual situations.

**Internship** IBC, Montpellier, France

Apr. 2015 – Sep. 2015

- AgroLD.org in Java: a RESTful API, a YASGUI based SPARQL editor, a dynamic form using the API

**Internship** NGO ACTE, Libreville, Gabon

May 2012 – Nov. 2012

- Designing a documentary model for educational resources developed by the NGO ACTE

## education

**Ph.D.** Computer Science, IMT Mines Alès, France

Jan. 2020

**M.Sc.** Intelligent & Multimedia Systems, Institut Francophone International, Vietnam

Nov. 2015

**Engineer** Computer Science, Institut Africain d'Informatique, Gabon

Dec. 2012

**B.Sc.** Mathematics & Computer Science, University of Dschang, Cameroon

Oct. 2009

## skills

**Languages** French (native speaker), English (good working knowledge)

**Data science Experiments tracking** using MLflow/ClearML/Guild.ai; **features store, model & data deployment, versioning, and monitoring** with Docker/ModelDB/CML; **Hyper-parameter optimization** with HyperOpt/Optuna/Guild.ai/MLflow; **Data augmentation** for NLP; **lifelong & active learning**

**Databases** MySQL, MongoDB, SPARQL, Spark, Hadoop, PowerBI

**Programming** Java (**Spring**), Python (**sklearn, Pytorch, Tensorflow, Keras, Spark MLlib**), C++ (**CUDA**), Git, agile & collaborative (**Jira, Google Colab**)

## publications

- Ghazi K., Tchechmedjiev A., Harispe S., Sutton-Charani N., **Tagny N. G.** (2020). On the evaluation of retrofitting for supervised short-text classification. In 1st DeepOntoNLP, CEUR-WS Vol 2708.
- **Tagny N. G.**, Mussard, S., Zambrano, G., Harispe, S., Montmain, J. (2020). Identification of Judicial Outcomes in Judgments: A Generalized Gini-PLS Approach. Stats, 3(4), 427-443.
- **Tagny N. G.**, et al. (2019). Detecting sections and entities in court decisions using HMM and CRF graphical models. In AKDM (pp. 61-86). Springer, Cham.
- Venkatesan, A., **Tagny N. G.**, et al. (2018). Agronomic Linked Data (AgroLD): A knowledge-based system to enable integrative biology in agronomy. PloS one, 13(11), e0198270.