Lionel Tadjou



As a young researcher in Natural Language Processing, I am currently in my 4th year of PhD with a defense date set for September 2023. My thesis work has focused on named entity recognition, corpus building and pseudonymization, and conversation disentanglement. Before starting my PhD, I worked as a full-stack developer for about 5 years on projects, some of which were European (PARTHENOS H2020. Throughout my professional career, I have supervised an intern and an apprentice.

Currently looking for new challenges where I could apply my knowledge and skills acquired during my PhD on data analysis problems in inter-disciplinary domains such as those of NLP which today includes LLM with libraries such as LangChain which I have already had the opportunity to use. My full-stack developer skills will also help me for rapid application prototyping for example.

PROFIL



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Paris, France



Cameroon



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EDUCATION

PhD | 2020 – Sept 2023 Field: Natural Language Processing **Sorbonne University** Paris - France

Master | 2008 - 2014 Field: Computer Science *University of Dschang*, Cameroon

LANGUAGES

French: Native Language

English: B2

Certification

Linux Professional Institute LPIC Level1: 04/2015 – 04/2020

PROFESSIONAL EXPERIENCES

PhD Student

March 2020 - September 2023

Orange/Inria | Caen/Paris, France

- Topic : Disentanglement of email conversations
 - Perform a state of the art of the problem
 - Develop an email extraction tool on employees' Outlook mailboxes in compliance with the GDPR
 - Implementation of a pseudo-anonymization chain of the collected data based on of Named Entities Recognition (NER)
 - Analysis of conversational corpora and production of statistical graphs
 - Trained models for dialogue acts recognition and text segments pairing
 - Write and present articles

R&D Engineer

May 2017 - February 2020

French National Institute for Computer Science and Applied Mathematic (Inria Paris), France

Project 1: Standardization Survival Kit (SSK - Github) within PARTHENOS H2020

SSK is Platform dedicated to support the modeling and management of research data for researchers in Digital Humanities. It has been used as core for the actual <u>SSH Open Marketplace</u>. In this project I was the only developer and below are the tasks that I performed:

- Design and implementation and deployment of platform (Back-end, Front-End and database)
- Integration of a UX designer's sketches into interactive web pages
- Set up of Elasticsearch as a database to facilitate textual and faceted search in the web application
- Build API to interconnect components of the platform and XML files stored on github

> Project 2: LECTAUREP, LECTure Automatique de REPertoires

This project aims to revolutionize the use that is currently being made of directories of notary deeds by researchers and users of notarial archival funds by developing a platform equivalent to a real tool for transcription, reading and computer analysis of writings organized in the notary's directory.

- Define specifications for a transcription crowdsourcing platform
- Training of segmentation and transcription models for the recognition of notary deeds with the Kraken tool

HOBBIES

Reading books on personal growth, running, visit natural parks, Chess, basketball, baby foot, football

Network administrator & Helpdesk Support

Ovamba Cameroon Solutions LTD, Douala, Cameroon

Management of the computer park for about thirty users

• Configuration and maintenance of Nano wifi repeaters, pfsense firewall and Xenserver hypervisor.

Full-Stack Developer

January 2016 - December 2017

Jan 2017 - April 2017

Ovamba Cameroon Solutions LTD, Douala, Cameroon

- Track and fix bugs
- Analysis and integration of check management, signatory management, and accounting modules

Full-Stack Developer/Part time

August 2013 – September 2015

Moneytel S.A, Douala Cameroun

In a team of 4 developers including a tech lead, we were working on the design and implementation of a payment system on mobile and web.

Skills

- Applications Development
 - Programming Languages: Java, Python, JavaScript/TypeScript, C#, SQL
 - o Frameworks: Spring Boot, Django, Bootstrap, Angular
 - <u>Data formats & Database:</u> JSON, XML; MySQL, PostgreSQL, NoSQL, Elasticsearch, MongoDB
 - CI/CD: Jenkins, Travis CI, GitLab CI/CD
 - Others: Latex, Docker, Junit, Mockito
- Natural Language Processing & Machine learning
 - o <u>Programming Language:</u> Python, Shell scripts
 - <u>Libraries:</u> Transformers, Pytorch, TensorFlow, scikit-learn, Spacy,
 Gensim, NLTK, Pandas, Seaborn, LangChain, OpenAI,

Publications

Constitution de sous-fils de conversations d'emails

L. Tadonfouet tadjou [et al.] (Submitted and accepted to coria-taln-2023, published by the end of May)

> Building A Corporate Corpus For Threads Constitution

Lionel Tadonfouet Tadjou | Fabrice Bourge | Tiphaine Marie | Laurent Romary | Éric de la Clergerie; RANLP 2021

A Tree Pattern Matching Algorithm for XML Queries with Structural Preferences. Available

Tchendji, M.T., Tadonfouet, L. and Tchendji, T.T. (2019) A Tree Pattern Matching Algorithm for XML Queries with Structural Preferences.

SSK by example. Make your Arts and Humanities research go standard
Marie Puren, Laurent Romary, Lionel Tadjou, Charles Riondet, Dorian Seillier

REFERENCES

- Laurent Romary, Director of scientific culture and information Inria, 3 rue Simone Iff, 75012 Paris
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- Eric de la Clergerie, Inria NLP Researcher (ALMAnaCH Team)
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- Fabrice Bourge, Research Engineer at Orange
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