

CEDRIC PARFAIT KANKEU FOTSING

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Objective

I have close to two decades of experience in computer science and close to a decade of experience in data analytics. Especially in social network analysis, data science for epidemics, and data science for public policy. I always strive to leverage my acquired skills to have a positive impact locally and globally.

Education

National Tsing Hua University, Hsinchu, Taiwan **07 2023**

PhD in Computer Science with Specialization in Data Science

- Supervisors: Prof. De-Nian Yang (Academia Sinica)
Prof. Yi-Shin Chen (National Tsing Hua University)

Xidian University, Xian, China **03 2014**

Master of Science in Circuit and System

- Supervisor: Prof. Yang Gang (Xidian University)

University of Dschang, Dschang, Cameroon **08 2009**

Bachelor of Science in Computer Science and Mathematics

Languages

French: Native language

English: Speaking (fluent), Reading (fluent), Writing (fluent) - IELST 7.5

Mandarin: Speaking (good), Reading (fair), Writing (fair) - HSK 4

Teaching Experience

Academia Sinica: Teaching assistant for the natural language processing course

Xidian University: Teaching assistant for the introduction to ASIC programming course

Various school and universities: English and french language teacher

Technical Skills

Languages/Database: Python, SQL, Android, Java, Matlab, R, C/C++, VHDL, Latex

Libraries: NumPy, SciPy, Pandas, Matplotlib, Tensorflow, PyTorch

Technologies: Social networks analysis, big data analytics, cloud computing, Interaction design, Embedded systems design

Software & Tools: Microsoft Word, Excel, PowerPoint, Overleaf, Adobe Acrobat, Eclipse

Operating Systems: Windows, Linux, Mac OS

Experience

Academia Sinica, IIS **09 2016 – 07 2023**

Research Assistant

Taipei, Taiwan

- Write research proposals
- Identify novel and critical research problems
- Formulate clearly the identified problems
- Design efficient and effective AI-based solution framework
- Gather and preprocess different OSNs, LBSNs and other mobility datasets
- Design the evaluation process, implement the proposed solutions and perform the evaluation
- Write research articles
- Present different research from the Lab to various audiences
- Teaching assistant for the Natural Language Processing course

Udacity **02 2017 – 10 2020**

Data Science Mentor

Online

- Providing guidance to students on the Udacity platform regarding their training on self-driving cars
- Providing theoretical insights on AI more specifically neural networks
- Providing Programming insights on Python libraries including NumPy, SciPy, Pandas, Matplotlib, Tensorflow, PyTorch

Xidian University **09 2011 – 03 2014**

Research Assistant

Xian, China

- Teaching assistant for the Introduction to ASIC programming course
- Designing, implementing and evaluating a data mining-based Chinese medicine examination system.
- Perform weekly progress report
- Guide bachelor students in writing their end of studies reports

Projects

Live multi-streaming soiree organization | *C++, Java, Python, SQL, Linux, Twitch* [Git](#) **09 2017 – 09 2023**

- I conducted the design of an automatic organizer for multi-streaming in groups.
- I conducted the implementation, the user study evaluation on an online streaming platform (i.e., Twitch), and the evaluation against state-of-the-art baselines
- I conducted the implementation of the baselines with c++, Python and Java
- I wrote the project report of the system

Spatial Crowdsourcing Organizer with Epidemic Control | *C++, Python, SQL, Linux, LBSNs* [Git](#) **04 2022 – 03 2023**

- I leverage SQL and Python to gather and process user mobility data from LBSNs, and epidemic datasets
- I implemented the spatial crowdsourcing task assignments framework with C++
- I implemented the baselines with C++ and Python
- I performed the evaluation of the framework on Linux servers
- I wrote the project report

POI Recommendation with Epidemic Containment | *C++, Python, SQL, Linux, LBSNs* [Git](#) **07 2021 – 03 2022**

- I gathered and processed epidemic and mobility datasets with SQL and Python.
- I implemented the framework and some baselines with C++
- I implemented the ML-based baselines with Python
- I conducted the evaluation of the framework on Linux servers
- I wrote the project report and performed the project presentation

Outdoor group activity organizer | *C++, Python, SQL, Linux, LBSNs* [Git](#) **09 2018 – 05 2020**

- I conducted the gathering and processing of LBSN datasets with Python and SQL
- I conducted the design of an automatic outdoor group activity organizer for LBSNs
- I conducted the implementation and evaluation with C++ and Python on Linux servers
- I wrote the project report and performed the project presentation

context-aware instant messenger for lunch platform | [Git](#) **05 2018 – 01 2019**

- I leverage interaction design principles to participate in the design, prototype and testing of the platform
- I also co-wrote the project report

Publications

C. P. Kankeu Fotsing, Chih-Ya Shen, De-Nian Yang, Yi-Shin Chen, Wang-Chien Lee. " On Efficient Processing of Queries for Live Multi-Streaming Soiree Organization. " IEEE TSC, 2023.

Cedric Parfait Kankeu Fotsing, Guang-Siang Lee, Ya-Wen Teng, Chih-Ya Shen, Yi-Shin Chen, and De-Nian Yang. " On Spatial Crowdsourcing Query under Pandemics." IEEE MDM, 2023.

Cedric Parfait Kankeu Fotsing, Ya-Wen Teng, Guang-Siang Lee, Chih-Ya Shen, Yi-Shin Chen, and De-Nian Yang. "On Epidemic-aware Socio Spatial POI Recommendation." IEEE MDM, 2022.

Kankeu Fotsing, C. P., Ya-Wen Teng, Sheng-Hao Chiang, Yi-Shin Chen, and Bay-Yuan Hsu. "Activity Organization Queries for Location-Aware Heterogeneous Information Network." Dasfaa, 2021

Awuor Fredrick, Sarah Otanga, Kankeu FC Parfait, Dorothy Rambim, Jane Maina. "Context-Aware Instant Messenger for Lunch Invitation." IEEE AFRICON, 2019.

Chih-Ya Shen, C. P. Kankeu Fotsing, De-Nian Yang, Yi-Shin Chen, Wang-Chien Lee. "On Organizing Online Soirees with Live Multi-Streaming. " AAAI, 2018.

Conferences and Talks

IEEE MDM 2022: Long paper presentation, <https://www.youtube.com/embed/OsU01UCbgys>

Certifications

Certificate 1, 11 2022: Create Machine Learning Models in Microsoft Azure

<https://www.coursera.org/account/accomplishments/certificate/9F774Y6P3L8E>

Certificate 2, 11 2022 : Ashoka Social Intrapreneurship for Innovation in Health

Certificate 3, 10 2020 : Udacity Mentorship Nano-Degree Program Certificate

<https://graduation.udacity.com/confirm/PDG9CWSQ>

Certificate 4, 02 2017 : Machine Learning by Stanford University on Coursera

<https://www.coursera.org/account/accomplishments/certificate/7NRQSA3DS9YY>

Competitions and Awards

Feed the Future : Finalist of the Fall Armyworm Tech Prize 2018 organized by Feed the Future under USAID

Xidian University: Selected for a presentation at Xidian University Most Innovative Project Competition 2012-2013

Provincial Chinese Language Competition: Selected for the 2nd round of the 2013 edition"

Xidian University: Best foreign student dissertation in Chinese language 2010-2011

Others

Hobbies: Reading, Football, Jogging, Music, Movies— **Personality:** Team player, Self-motivated, Fast learner, Open-minded