



## Antoine Chaffin

CS Engineer, ML PhD

26



## About me

Lifelong passionate about **science** and **technology**, I quickly appreciated the possibilities offered by IT and even more by AI.

I did an **engineering school** to study computer science and learn proper coding practices that I put into practice during my **internships in software firms**.

After getting my **IT engineering degree** and a **master degree in research in computer science**, my passion and will to share it with as many people as possible led me to do a **Ph.D.**, where the goal was to **bridge the gap between text and image modalities** in the context of fake news detection.

Besides the multimodal aspect of my thesis, I studied **natural language generation** through **cooperative generation** (using an external model to guide the generator). Finally, I studied **reinforcement learning** to train (**cross-modal**) **language models**.



## Languages



NATIVE



C1



B1



## Contact



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## Experiences

### VISITING RESEARCHER (SORBONNE UNIVERSITY)

⌚ DECEMBER 2021 PARIS

One month internship in the **MLIA** team to collaborate on **cooperative generation**

### TEACHER (RENNES UNIVERSITY)

⌚ 2020-2021 RENNES

Teaching **data analysis** to undergraduate students (**ISTIC**) and **machine learning** to engineer students (**ESIR**)

### TRINEE (IRISA)

⌚ FEB-JULY 2020 RENNES

End-of-studies research internship on the subject of **image repurposing detection using multimodal models**

### TRINEE (THEM-IS)

⌚ JUNE-JULY 2019 NANCY

Realization of a web project for the **Basel-Mulhouse airport**

⌚ JULY-AUGUST 2018

Web developpement of the **firm's portfolio**



## Education

### IRISA, IMATAG

⌚ 2020-2023 RENNES

**Industrial Ph.D.** in machine learning (**Multimodal Misinformation Detection**)

### UNIVERSITY OF RENNES 1

⌚ 2019-2020 RENNES

**M.Sc. degree** in research in computer science with **highest honors**

### POLYTECHNIQUE MONTRÉAL

⌚ 2019 MONTREAL

International exchange

### INSA

⌚ 2015-2020 RENNES

**Engineering degree** (integrated preparatory classes during 2 years followed by 3 years in the IT department)



## Publications

### GENERATIVE COOPERATIVE NETWORKS FOR NATURAL LANGUAGE GENERATION

Sylvain Lamprier, Thomas Scialom, **Antoine Chaffin**, Vincent Claveau, Ewa Kijak, Jacopo Staiano, Benjamin Piwowarski  
ICML 2022

### WHICH DISCRIMINATOR FOR COOPERATIVE TEXT GENERATION?

**Antoine Chaffin**, Thomas Scialom, Sylvain Lamprier, Jacopo Staiano, Benjamin Piwowarski, Ewa Kijak, Vincent Claveau  
SIGIR 2022, TALN 2022

### PPL-MCTS: CONSTRAINED TEXTUAL GENERATION THROUGH DISCRIMINATOR-GUIDE MCTS DECODING

**Antoine Chaffin**, Vincent Claveau, Ewa Kijak  
NAACL 2022, TALN 2022

### BLOOM: A 176B-PARAMETER OPEN-ACCESS MULTILINGUAL LANGUAGE MODEL

Big Science Project

arXiv

### GENERATING ARTIFICIAL TEXTS AS SUBSTITUTION OR COMPLEMENT OF TRAINING DATA

Vincent Claveau, **Antoine Chaffin**, Ewa Kijak  
LREC 2022, TALN 2021

### MULTITASK PROMPT TUNING ENABLES ZERO-SHOT TASK GENERALIZATION

Sanh et al.

ICLR 2022