RAPHAEL **BOURNET**

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https://github.com/Gozea in https://www.linkedin.com/in/raphael-bournet/

SKILLS

Programming
- C/C++
- Python, Javascript
- Java/C#
- Bash

ML Frameworks
- Pytorch/Pytorch Lightning
- Ultralytics, Huggingface
- YOLOv8, Tesseract
- BERT, T5, mBART, CLIP
- Numpy, Scipy, Pandas, Scikit-learn

Deployment
- AWS, Google Cloud, IBM Cloud
- Docker, CI/CD

Web
- HTML/CSS
- Node.js, MangoDB, Vue.js, SQL
- Fullstack

LANGUAGES

French : Native or bilingual proficiency

English : Professional working proficiency

Japanese : Intermediate level

German : Elementary proficiency

EDUCATION

Paris-Saclay University

Master of Computer Sciences
2021 – 2023

Paris-Saclay University

Double Bachelor Mathematics & Computer Sciences
2018 – 2021

PROFESSIONAL EXPERIENCES

ML Engieneer / Research Intern

国立情報学研究所

📅 March 2023 - September 2023 📍 Tokyo, Japan

- built **cross-modal machine-learning** models merging audio-visual data
- implemented **Transformers** and **Diffusion**-based models
- co-authored the paper <u>LiveChat: VideoComment Generation from Audio-Visual Multimodal Contexts</u>
- presented results to invited professors

Software Engineer / Research Intern

LISN

📅 May 2022 - July 2022
May 2021 - July 2021 📍 Gif-sur-Yvette, France

- applied **NLP** techniques on a visualization prototype to enhance a user experience working with heavy file hierarchy
- built a research prototype for the paper <u>Passages: Interacting with Text Across Documents</u> which got published at the **CHI 2022** conference and received the **highest honors**
- designed an application oriented for **ex situ users**

SCIENTIFIC PUBLICATIONS

<u>Passages: Interacting with Text Across Documents</u>, Han L. Han, Junhang Yu, Raphael Bournet, Alexandre Ciorascu, Wendy E. Mackay, CHI 2022
https://dl.acm.org/doi/10.1145/3491102.3502052

<u>LiveChat: VideoComment Generation from Audio-Visual Multimodal Contexts</u>, Julien Lalanne, Raphael Bournet, Yi Yu, *https://www.researchgate.net/publication/374264816_LiveChat_Video_Comment_Generation_from_Audio-Visual_Multimodal_Contexts*

PET PROJECTS

MangaBubbles

Automatic manga pages translation using **object-recognition, OCR,** and **multi-language Seqence2Sequence Transformer.** The application has been deployed **serverless** on **Google Cloud** and can communicate with a browser extension
*https://github.com/Gozea/*MangaBubble

Raycaster

Casting rays in a given POV and displaying obstacles according to their distance
https://github.com/Gozea/Raycaster

Metaballs

Display shapes given their implicit function with the marching square algorithm for computer-efficiency
https://github.com/Gozea/Metaballs

GMTK 2023 - Game Jam

Imagined, designed, and programmed a game with a team of 4 in **48h** with **Unity**
https://itch.io/jam/gmtk-2023/rate/2163501

Donut.cpp

Affichage de nuages de point en 3D avec caméra controllable
https://itch.io/jam/gmtk-2023/rate/2163501