Victoria Brami | Resume

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🖥 https://victoria-brami.github.io

Looking for Research Position in Multimodal learning / Cognitive Science starting in February/March 2024

Education

MsC. Vision and Applied Mathematics (MVA)　　　　　　**ENS Paris-Saclay, FRANCE**
First Class Honours (17.6 / 20)　　　　　　　　　　　　　　　　　　　*2021–2022*

- Ranked #1 in Mathematics according to Shanghai rankings (2020, 2021, 2022)
- First Semester: 3D Computer Vision, Convex Optimization, Computational Statistics, Numeric Imaging, Object Recognition.
- Second Semester: Speech and Natural Language Processing, Advanced Deep Learning, Kernel Methods, Deep Reinforcement Learning and Audio Signal Analysis.

Master's Degree in Mathematics (ENPC)　　　　**Ecole des Ponts ParisTech, FRANCE**
First Class Honours (GPA 3.9).　　　　　　　　　　　　　　　　　　　*2018–2022*

- Top-Tier French Engineering School, Department of Mathematics and Computer Science.
- Major: Machine Learning, Computer Vision, Operational Research, Stochastic Processes.

Lycée Pasteur - Bachelor Degree　　　　　　　　　　**Neuilly Sur Seine,FRANCE**
First Class Honours,　　　　　　　　　　　　　　　　　　　　　　　　*2016–2018*

- Two intensive years in Mathematics and Physics with Engineering Option. to prepare Engineering School Competitive Exam Entrance.

Professional Experience

Visiting Student - University of Edinburgh　　　　**Edinburgh, UNITED KINGDOM**
Supervised by Frank Keller.　　　　　　　　　　　　　　　　　*Jul. 2023 – present*

- Visiting Frank Keller's Group, EdinburghNLP.
- Working on EEG signals decoding with diffusion models.

Applied Research Intern - Valeo AI　　　　　　　　　　　　　　**Paris, FRANCE**
Supervised by Patrick Perez.　　　　　　　　　　　　　　　　*Apr. 2022– Sept. 2022*

- 3D Facial, Hand and Human Pose Body Estimation for a Driver Monitoring System.

Research Intern - ENS Paris and INRIA　　　　　　　　　　　　**Paris, FRANCE**
Supervised by E. Dupoux from Meta and LSCP lab.　　　　　　*Mar. 2021– Jul. 2021*

- In Cognitive Machine Learning Team (CoML), in the Department of Cognitive Science.
- Compared common Automatic Speech Recognition Models performances (supervised and unsupervised) to model Human Speech Perception.
- Developed a data storing website in Python.

Deep Learning Scientist - StereoLabs   **Montrouge, FRANCE**
Deep Learning and 3D Computer Vision   *Jul. 2020– Jan. 2021*

- 3D skeleton inference on images from incomplete 3D data, leveraging full body context (PyTorch, OpenCV).

Physics Teaching Assistant   **Neuilly-sur-Seine, FRANCE**
         Sept. 2019 – Mar. 2020

- Interrogated students on a weekly basis in physics to train them for the Engineering Schools competitive entrance exams.

Personal Projects

Nepthune - A University Grant Platform
Developing a website to ease the access for students to any kind of scholarship.
Learning on my own full-stack development.   *Feb. 2022 – present*

Building Electrical Skateboard
Built an electric skateboard from scratch.   *2020–2021*

European Tour on Train
Travelled across 5 European countries: France, Germany, Slovenia, Italy, Switzerland. *Aug. 2021*

Academic Projects

Study of Character-Level Language Model
Supervised by Benoit Sagot and Emmanuel Dupoux   *Mar. 2022–Apr. 2022*

- Compared Character-based LM to common SOTA word-based LM (mBert) on multilinigual classification and QA tasks.

Image classification with Kernel Methods
Supervised by Inria THOTH team   *Feb. 2022–Mar. 2022*

- Kaggle data challenge to classify images relying on Kernel models.

Image Completion using GANs
Supervised by Yann Gousseau.   *Dec. 2021–Feb. 2022*

- Ablation study on a GAN to render the inpainting result more consistent locally and globally.

Action-conditioned 3D human motion synthesis
Supervised by Gül Varol (Imagine, ENPC).   *Dec. 2021–Feb. 2022*

- 3D human motions with generative models (VAE transformers).

Using Mixture of Experts (MoE) to model Global warming
Supervised by Stéphanie Allassonière (Prairie).   *Jan. 2022*

- Proposed a refined GMM-model to explain annual temperature variations.

Real-time Swimmer Tracking (Sciences 2024)
Supervised by Vincent Lepetit (Imagine, ENPC).   *Feb. 2020–Jun. 2020*

- In partnership with Sciences 2024, developed a model to track swimmers in realtime in the view of the Olympic Games in 2024.

Realtime pricing system for self-service vehicle application
Supervised by Frédéric Meunier (CERMICS, ENPC).   *Oct. 2019–Feb. 2020*
- Proposed a simulation to model the self-resupplying of parisian bike stations.

Computer skills

Frameworks: Linux, Git/Gitlab, Latex, Beamer Microsoft Office

Programming Languages: Python (advanced), C++ (Intermediate), HTML/CSS/Javascript (intermediate), Django

Programming Packages: PyTorch, OpenCV, Huggingface, optuna, pandas, scikit-learn, tensorboard, wandb, etc.

Languages

French: Mother-tongue.   *C2*

English: Proficiency (TOEIC in 2018, FCE in 2014).   *C1-C2*

Japanese: Conversational, lived in Tokyo for more than 6 years.   *B1-B2*

Spanish: Conversational.   *B1-B2*

Chinese: Beginner, 2+ years.   *A2*

Italian: Beginner.   *A2*

Community and Volunteering Experience

Maraudes   **Paris, FRANCE**
Discussing and providing drinks and hygiene kits to homeless people.   *2020–present*

MRI Annotation application   **Bordeaux Hospital, FRANCE**
Developed an app to help cardiologists to annotate scars on MRIs.   *2021*

Treasurer at ENPC Student Art Club   **Champs-Sur-Marne, FRANCE**
In charge of the treasury and the organization of artistic events.   *2019–2020*

High School Teaching Assistant   **Neuilly-sur-Seine, FRANCE**
Tutored high school students in mathematics and physics.   *2017–2018*

Interests

- **Sports**: Gymnastics, Skate, BreakDance, Climbing, Golf.
- **Travelling** (USA, Mexico, Canada, Japan, etc.)
- **BasketBall**: University Championships, member of the school team.
- **History and Foreign countries culture**