Sebastian STREAM

MSC COMPUTER VISION STUDENT, LOOKING FOR AN INTERNSHIP OPPORTUNITY

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Paris, France

https://sebvstian.cafe

Passionate about computer vision, machine learning, and visual computing, I wish to further develop my skills in artificial intelligence research and applied computer graphics. Curious, analytical, and resourceful, I have always enjoyed exploring complex problems at the intersection of mathematics, algorithms, and visual data processing.

Formation

Master's degree in mathematics, computer vision

Currently being taught at Paris Descartes University, France
Specialization in computer vision, with advanced courses in probability and inferential statistics, convex and continuous optimization, statistical learning, deep learning, algorithmic geometry, big data, data science and signal processing.

Bachelor's degree in mathematics, computer science and cognitive science

From 2022 to 2025 University of Bordeaux, France
Training including mathematical optimization, linear algebra, multivariate analysis, hypothesis testing and statistical regression, statistics, machine learning, human-computer interaction, neuropsychology, psychophysiology and episemology.

Baccalaureate with specializations in Mathematics, Physics and Engineering Sciences with an option in expert mathematics

From 2019 to 2022, Gustave Eiffel High School, Bordeaux, France

Professional experience

Research Scientist Intern - Storzyz Paris

From June to August 2026, Vizion team
Subject: Image forensics analysis and generated image detection.

- **Deepfakes** detection, inpainting, and image manipulation
- Automated real-time image analysis
- Handling massive data streams with Spark/MongoDB

Research Scientist Intern - Inria Bordeaux Centre

From May 2025 to July 2025, Team Manao
Topic: Latent space alignment in encoders/decoders for image compression, explored SOTA neural network architectures.

- **VAE** implementation for generating new images
- Using a **GPU cluster** for model training
- I am working on a technical article on neural compression.

IT Support Agent - University of Bordeaux (CREMI)

From September 2024 to April 2025
Deployment of an LLM agent (RAG architecture) for academic documents (Augmented Generation by Retrieval)

Personal & Academic Projects

- **Image reconstruction** using **Monte Carlo methods** with Markov chains. sebvstian.cafe/Markov/markov.html.
  Full report: sebvstian.cafe/assets/TER.pdf
- I am currently working on a **segmentation pipeline** (U-Net) on the BraTS dataset for **volumetric brain reconstruction** from 2D MRI slices.
- Mathematical modeling of **spatial descriptors** for predicting **spatial relationships** between two objects in an image. sebvstian.cafe/RLM/index.html
- I am also developing an **augmented vision** pipeline to visualize occluded geometry (seeing through walls) by implementing RTG-SLAM algorithms for instant **environmental mapping**.
- I deployed a personal Linux server to host **local LLMs** (deepseek-r1, 7b), accessible remotely via a custom domain and a **reverse proxy** (Nginx).

Technical skills

Programming & Machine Learning
Python, C++, Java, PyTorch, TensorFlow, Keras, OpenCV, MediaPipe, LangChain

Mathematics
Probability, inferential statistics, linear algebra, multivariate analysis, convex/continuous optimization, signal processing, hypothesis testing and statistical regression.

Infrastructure
Cluster HPC/GPU (Plafrim), Slurm, Docker, tunnel SSH, Linux/Bash, Git/GitHub, Nginix, Kubernetes, MongoDB, Spark, MySQL

LANGUAGES

English	Fluent
French	Native language
Spanish	Operational
Mandarin	Learning

Experiences

Music: Bassist for the university band “Espace -120” at the University of Bordeaux. Collaborative and dynamic work.

Rock climbing: Regular bouldering practice. Planning and problem-solving (route reading).

Running: Bresse Dombes Half Marathon completed in 2025. Rigorous training plan, pushing my limits.