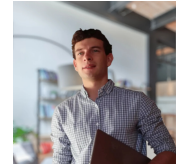


Benjamin Gallois, Ph.D.

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🌐 bgallois

🌐 http://gallois.cc



Bio

- 📖 I am a versatile and innovative developer with a Ph.D. in Physics, specializing in computer vision, blockchain technology, and data analysis. My broad expertise enables me to tackle complex challenges and deliver high-quality, science-driven solutions. I excel in managing projects from conception to deployment, ensuring they meet rigorous standards and leverage the latest advancements in research. With a strong background in open-source contributions and collaboration on large-scale projects, I thrive in both individual and team environments, consistently pushing the boundaries of technology.

Employment History

2021 – Present

📖 Freelancer

As a freelancer, I provide solutions in computer vision, data analysis, and Substrate-based blockchain development, managing projects from conception to deployment. Notable work includes creating and deploying the You&EyePhoto backend across 10+ European art galleries. Since 2022, I've managed the Dunitier blockchain backend, implementing new features and optimizing functionality. I have experience working with individuals and small to medium-sized companies. My approach is driven by state-of-the-art solutions from the latest academic research, with a focus on clear, standardized, and well-documented coding practices.

2017 – 2021

📖 Doctoral Thesis (Ph.D. Student), Sorbonne University, Paris

During my PhD thesis in Physics, I focused on the chemical perception of young zebrafish. A major accomplishment from this research was the development of FastTrack software, now widely used in research laboratories worldwide. This experience honed my ability to manage projects from conception to realization, effectively communicate complex subjects both verbally and in writing to a diverse audience, and mentor and teach students. Additionally, I developed strong skills in collaboration and communication across various related fields, ensuring successful interdisciplinary cooperation.

Education

2021

- 📖 **Ph.D., Physics | Neuroscience, Sorbonne University, Paris**
Chemical Perception Of The Young Zebrafish

2017

- 📖 **M.Sc., Biophysics, University Paris 7 Diderot, Paris**

2015

- 📖 **B.Sc., Fundamental Physics, University Paris 7 Diderot, Paris**







Research Publications

Journal Articles

- 1 B. Gallois, L.-L. Pontani, G. Debrégeas, and R. Candelier, "A scalable assay for chemical preference of small freshwater fish," *Frontiers in Behavioral Neuroscience*, vol. 16, p. 990 792, 2022.

- 2 B. Gallois, "Assessing chemical perception of the young zebrafish," 2021.
- 3 B. Gallois and R. Candelier, "Fasttrack: An open-source software for tracking varying numbers of deformable objects," *PLoS computational biology*, vol. 17, no. 2, e1008697, 2021.
- 4 S. Richard, A. Brun, A. Tedesco, *et al.*, "Direct imaging of capillaries reveals the mechanism of arteriovenous interlacing in the chick chorioallantoic membrane," *Communications Biology*, vol. 1, no. 1, p. 235, 2018.
- 5 V. Fleury, A. V. Murukutla, N. R. Chevalier, *et al.*, "Physics of amniote formation," *Physical Review E*, vol. 94, no. 2, p. 022 426, 2016.

Skills

- Languages  English (spoken, written), French (spoken, written).
- Programming  C++, Python, Rust, TypeScript, Julia.
- Frameworks  SciPy, Pandas, OpenCV, TensorFlow, Keras, Qt, Substrate.
- Web Dev  HTML/CSS, Apache, Nginx.
- Databases  SQLite, PostgreSQL, MariaDB.
- Misc.  LaTeX typesetting and publishing.