Baptiste Lafoux

PhD in physics and engineer, 5 years experience in data acquisition, analysis and visualization.
Open to opportunities starting September 2024

EXPERIENCE

> PROJECT «SAILING *PETIT BOUILLON* ACROSS EUROPE» | 2024 (6 MO.)

Achieving a personal long term project after my thesis: to renovate my 8m-sailboat and sail 4000km across Europe (including bay of Biscay, Gibraltar strait crossings).

project management · adapting to uncertainty · DIY repairs & maintenance · teamwork

> DOCTORAL RESEARCHER, PMMH LAB (ESPCI), PARIS | 2019-2023

Understanding and modeling collective crowd-like motion using the example of fish schools.

3 publications in high profile peer-reviewed scientific journals, participations in international conferences. Managed 4 research interns and initiated 3 multidisciplinary collaborative projects. Awarded International Mobility Grant of Université Paris Cité. PhD students' representative, organized CoDoc, the young researchers' seminar of the lab (4 days, 50 people).

project management · scientific communication · popularization/teaching · large data processing in Python (scipy, matplotlib, pandas, Xarray) · image acquisition · tracking (pyTrack) · git · sensor/experimental design (3D printing, CATIA)

> RESEARCH INTERN, IMSIA LAB (ENSTA), PALAISEAU | 2019

Master thesis: Prediction and reduction of noise pollution due to wind turbines

MATLAB · mechanical engineering · teaching · LabView · Python

> COO & CO-FOUNDER, WINDMYROOF, PARIS | 2017-2020

Design, production and distribution of an innovative roof-mounted wind turbine module.

Created the start-up after an academic project: patent registration, industrialization, business plan, pre-seed. Winner of the VINCI Innovation Prize, project supported by the Leonard incubator. The company currently employs 15 people.

capital raising · business planning · market research · pitching · industrial project management · prototyping

> VISITING RESEARCH INTERN, BOUROUIBA LAB (MIT), BOSTON | 2017 (6 MO.)

Soil pathogens transport by the rain : droplet impacts on granular media

particle tracking · high speed imaging · MATLAB

EDUCATION

> UNIVERSITÉ PARIS CITÉ, ESPCI — DOCTORATE | 2023

> INSTITUT POLYTECHNIQUE DE PARIS — MASTER OF SCIENCE | 2019

Fluid mechanics specialization with a focus on **data processing** and **experimental techniques**. Experimental methods & theory, geophysical flows, CFD, turbulence & instabilities.

> ÉCOLE NATIONALE DES PONTS ET CHAUSSÉES — ENGINEERING DEGREE | 2015-2019

Advanced applied mathematics, algorithmics and data structures (C++), software development (Python), statistics, fluid and solid mechanics (theoretical and computational)

> LYCÉE HENRI-POINCARÉ, NANCY — PREPARATORY CLASS | 2013-2015

PCSI, PSI* — General mathematics, physics and engineering

LANGUAGES

English – Full professional proficiency, TOEIC 980/990

German – Professional working proficiency, Baccalauréat mention « euro Allemand »

ACTIVITIES

> REFUGEE STUDENTS PROGRAM, ÉCOLE DES PONTS

Founded and coordinated for 2 years a return-to-study program for refugee students with a scientific background

> PHONEBUOY, LOWTECH WAVE MEASUREMENT AT SEA

Designing during my travel a cheap and easily deployable wave buoy, based on smartphone technology: live WiFi transfer of GPS position and inertial unit data

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