

Pablo Botin

Computational Fluid Dynamics
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SUMMARY

Dynamic and results-oriented engineer with expertise in the wind and solar energy industries. Proficient in computational fluid dynamics and passionate about research and innovation. Committed to leveraging technology to address environmental challenges and advance sustainability initiatives. Adept at interdisciplinary collaboration and dedicated to contributing to innovative solutions for renewable energy generation and climate change mitigation. Currently pursuing a Ph.D. in computational fluid dynamics, specializing in wind energy. Eager to bring expertise, enthusiasm, and dedication to an internship opportunity.

TECHNICAL SKILLS

Languages: Matlab, Python, JavaScript, C++, R.

Frameworks: Git, VS Code, Anaconda, HPC, gmsh, Paraview, Slurm, Comsol, WindPro, OpenWind...

Libraries: fenicsx/legacy, TensorFlow, Dakota, MPI, MeshPy...

EXPERIENCE

PV Design Engineer

Jan. 2021 – Jan. 2022

Sunhero, Residential PV Development StartUp

Barcelona, Spain

- Over 600 systems designed, 16 installed, lead a team of 3 interns.
- Developed a design tool to automate and optimize the design process.

Wind Resource Engineer

July. 2022 – Jan. 2023

IGNIS, Renewable Energy Utility Development Company

Madrid, Spain

- Design of wind farm layouts.
- Performed energy production and LCOE estimations using specialized software.

EDUCATION

CU Boulder

Boulder, Colorado

Doctor of Philosophy (Ph.D.) in Mechanical Engineering

2023 - Now

- Teaching Assistant: Fluid Dynamics and Computational methods.
- Improved Approximate Bayesian Computation for calibrating LES SGS models (performed thousands of simulations on Frontera (TACC) HPC).
- Fluid simulation for NOAA exhibit to be deployed in May 24'.

Universidad Politecnica de Barcelona

Barcelona, Spain

Master of Science in Energy Engineering

2020 - 2022

- Master thesis: Approximate Bayesian Computation for calibrating LES SGS models.

Universidad Politecnica de Madrid

Madrid, Spain

Bachelor of Science in Industrial Engineering with a Minor in Computer Science

2014 - 2018

- Honors in Structural Analysis (Finite Element Analysis module).

VOLUNTEERING

CU Wind Energy Club

2023 - now

WindAid Institute ambassador

2018 - 2021