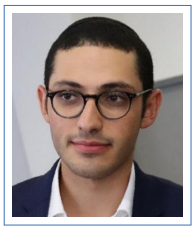

Jonas Benhamou

Education

2022 - 2025 **Ph.D.**, *Safran Tech & Mines Paris Center for Robotics (CAOR).*
Ph.D. between industry and academia titled: "Localization and Control in Fault Situations". Initial work focuses on the link between localization and planning to improve localization (active sensing). Topics covered include: robotics, localization, trajectory planning, active perception.

2021 - 2022 **Master's Degree in Data Science**, *Institut Polytechnique de Paris.*
Statistical learning, deep learning, reinforcement learning, NLP, optimization, and infrastructures for big data.

2019 - 2022 **Engineering Degree**, *Ensta Paris.*
Major in Applied Mathematics, specialization in optimization and data sciences. Operational research, convex optimization, dynamic programming, geometric control, statistics, time series analysis...

2017 - 2019 **Preparatory Classes for Grandes Écoles**, *ORT Strasbourg.*
MPSI/PSI track: Physics and Engineering Sciences.

Experience

April - September 2022 **Final Year Internship**, *RTE*, R&D Department.
Profiling of long-term power consumption (Horizon 2050). Improvement of a parametric model learned on a panel of consumers.

May - August 2021 **Research Internship**, *Biomedical Imaging Laboratory (LIB) at INSERM.*
Time-frequency analysis, EEG signal processing, statistical study of the results, and model implementation.

Publications

Ph.D..

Jonas Benhamou, Silvère Bonnabel, and Camille Chapdelaine. *Backpropagation-Based Analytical Derivatives of EKF Covariance for Active Sensing*. 2024. arXiv: 2402.17569

Jonas Benhamou, Silvère Bonnabel, and Camille Chapdelaine. "Optimal Active Sensing Control for Two-Frame Systems". In: *2023 62nd IEEE Conference on Decision and Control (CDC)*. 2023

Research Internship.

Jonas Benhamou, Michel Le Van Quyen, and Guillaume Marrelec. "Time-Frequency Analysis of Event-Related Brain Recordings: Connecting Power of Evoked Potential and Inter-Trial Coherence". In: *IEEE Transactions on Biomedical Engineering* (2023)

Skills

Advanced proficiency in: Python, R, C++, MATLAB, Julia.

Languages: French and English

jonas.benhamou@minesparis.fr