Joyce KUOH MOUKOURI

ENGINEER, DATA SCIENTIST
BILINGUAL ENGLISH/FRENCH

PROFILE

Multidisciplinary research engineer with a Data Science specialization and a passionate interest for economy, who'd love to use her computational skills to contribute to impactful causes.

EDUCATION

2023 — **Master of Data Science** - completion in september 2023
Openclassrooms / CentraleSupélec, distance learning

2016 — **Master of Research in Materials and Structure Mechanics**
École Nationale Supérieure des Arts et Métiers (ENSAM), Paris

2016 — **Engineering degree**
École Nationale Supérieure des Arts et Métiers (ENSAM), Paris

2012 — **Bachelor of Science in Mechanical engineering**
Université Pierre et Marie Curie (UPMC), Paris

EXPERIENCE

2018-2020 — **EDVANCE l UK VALVES MECHANICAL ENGINEER, Malakoff (Fr)**
Qualification of valves to normal use, accidental and seismic events for Hinkley Point C (UK) nuclear power plant.

Tools : Finite Element Modelling (FEM), Python, RCCM

2016-2017 — **EDF ENERGY R&D, MANCHESTER UNIVERSITY**
RESEARCH ENGINEER (VIE), Manchester (UK)
Study of the damage-related ageing of the core of a standard Advanced Gas-cooled Reactor (AGR). Development of a numerical tool able to describe the influence of a cracked moderator brick containing the fuel, on the surrounding components.

Tools : Finite Element Modelling (FEM) with ABAQUS and Code_Aster, Python

2016 — **EDF SEPTEN l MECHANICAL ENGINEER, Lyon (Fr)**
Verification and validation for the improvements brought on numerical methods of Fatigue calculation applied to nuclear plants components.

Tools : Finite Element Modelling (FEM) with Code_Aster, Python, VBA, MATLAB

2015 — **CENTRE DES MATÉRIAUX, MINES DE PARIS**
RESEARCH ENGINEER INTERN, Paris (Fr)
Finite Element Simulation of the sintering behaviour of an innovative Solid Oxide Fuel Cell - The IDEAL-Cell concept.

Tools : FEM, Experimental determination of the constitutive law (dilatometry, beam tests...); Mathematical optimization tools, MATLAB, PYTHON.

The work led to the following publication : **"Modelling and prediction of the deformation during co-sintering of a high temperature dual membrane fuel cell"**, D. Masson, J. Kuoh Moukouri, A. Chesnaud, A. Thorel ECS Conference on Electrochemical Energy Conversion and Storage with SOFC-XIV, 2015

IT

Programming : Python, SQL, MATLAB, FORTRAN, VBA
Finite Element Modeling : ABAQUS, Code_Aster
Collaborative tools and tests : MLFlow, Git, Github, Pytest
Scientific communication : LaTeX, Dash, Matplotlib, seaborn
ML Library : scikit-learn, TensorFlow, PySpark
Natural Language Processing : NTLK, transformers, spaCy
Image processing : OpenCV
Model deployment tools and APIs : Flask, Request, AWS

MISCELLANEOUS

2022 **ARTE, L'INCUBATEUR | RESIDENT AUTHOR**
I'm part of the multidisciplinary collective of ARTE L'INCUBATEUR, along with documentarists, one historian, one physicist, economists, a comic book writer and more, to reflect on our world and create freely.

2020 **KOURTRAJME | RESIDENT FILMMAKER**
Directed a short film entitled SORORITÉ,
Produced by LYLY FILMS
Fiction, 15', with A. MANENTI, M. KABA
Short Film Picks of Clermont-Ferrand Festival, 2021