Sylvain **Delahaies**

Data Science | Data Engineering

In brief

After more than ten years of applied and fondamental research in Mathematics and Data Assimilation I decided to operate a slight career shift to embrace the AI revolution. Starting with an intensive self-training in Machine Learning and Deep Learning, I then joined DataScientest to train as a Data Engineer to fulfill my potential.

My goal: to design, implement and deploy AI solutions.

In practice

s.delahaies@gmail.com

Website: sdelahaies.github.io

Condat-sur-Vézère, Dordogne, FR

partial/full remote

Languages

French - Mother tongue

English - professional proficiency

German - Notions

Education

- **Data Engineering** *Jan-Apr 2023*
  DataScientest, Paris.
- **Doctorat** *2005-2008*
  Contact and Complex structures in Geophysical Fluid Dynamics
  University of Surrey
- **Master of Science** *2004-2005*
  Hydro-Informatics
  University of Surrey
- **Master recherche** *1999-2004*
  Mathématiques et Applications
  Université d'Angers

Interests

- City council
- Computing
- Sciences
- Linux
- Technologies
- craft building
- Piano, Guitar
- Hiking
- Lutherie
- Heritage

SKILLS

Math & Data Science
- Geophysical Fluid dynamics
- Data analysis & visualisation
- Data assimilation
- Machine Learning
- Computer Vision
- Natural Language Processing
- Reinforcement Learning
- Recommendation System

langages & outils
- python, bash, LaTeX, Git, Matlab
- pytorch, tensorflow, sklearn
- VS code, jupyter, Android Studio

Isolation & Orchestration
- Docker
- Kubernetes
- Airflow

Bases de données
- SQL & NOSQL
- MongoDB
- ElasticSearch
- Neo4j

Big Data
- Java Spark
- Pyspark
- Hadoop Hive
- Kafka
- Spark Streaming

Developpement
- Fastapi
- Flash
- Dash
- Streamlit
- Django

EXPERIENCE

Jan-Avr 2023

Data Science/Engineering Project
DataScientest

Development of a travel planning App with POI recommendation: design, implementation, deployement.
Skills : Airflow, MongoDB, Streamlit, fastapi, docker, neural collaborative filtering.

2020- ...

Visiting research fellow — Guildford,UK
University of Surrey

2009-2020

PostDoc researcher — Guildford,UK
University of Surrey

- Development of bayesian ensemble filters for point processes. Application to crime modeling, neural networks, covid19 outbreak.
- Using insurance claims history and LiDAR elevation data together with machine learning techniques we evaluated insurance risks associated with land subsidence phenomenon. Partnership with the National Physics laboratory (NPL).
- In collaboration with Earthi (UK), preliminary study to evaluate the benefits of very high resolution satellite imagery together with a terrestrial ecosystem carbon cycle model to monitor and detect forest degradation.
- Analysis of calls for services data from the Providence Police Department to optimize shift scheduling and police patrols dispatch.
- Within the National Centre for Earth Observation (NCEO), development of variational tools to evaluate the information content of different observation fluxes in carbon cycle models.

Teaching: Numerical solutions for PDEs.