

# Sylvain **Delahaies**

Data Science | Data Engineering

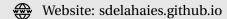


#### - In brief ———

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 -



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, ŁTFX, Git, Matlab
- pytorch, tensorflow, sklearn
- VS code, jupyter, Android Studio

#### **Isolation & Orchestration**

- Docker
- Kubernetes
- Airflow

#### Bases de données

- SQL & NOSQL
- MongoDB
- ElasticSearch
- Neo4i

#### Big Data

- Java Spark
- Pvspark
- 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, neu-

ral collaborative filtering.

# Visiting research fellow

# **University of Surrey**

## Guildford,UK

Guildford.UK

#### 2009-2020

2020-...

# earth **f**







#### PostDoc researcher **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.