

Sylvain **Delahaies**

Data Science | Data Engineering

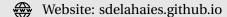


- In brief ——

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 –



in sylvaindelahaies

Condat-sur-Vézère, Dordogne, FR



partial/full-remote working

Languages -

- French Mother tongue
- # English professional proficiency



- Education -

- PhD 2005-2008
 Contact and Complex structures in Geophysical Fluid Dynamics
 University of Surrey
- MSc 2004-2005 Hydro-Informatics University of Surrey
- MSc 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

Languages & Tools

- python, bash, ŁTĘX, Git, Matlab
- pytorch, tensorflow, sklearn
- VS code, jupyter, Android Studio

Isolation & Orchestration

- Docker
- Kubernetes
- Airflow

Databases

- SQL & NOSQL
- MongoDB
- ElasticSearch
- Neo4i

Big Data

- Java Spark
- Pyspark
- Hadoop Hive
- Kafka

Development

- Fastapi
- Flask
- Dash
- Streamlit

TRAINING

Data Engineer

Datascientest Diploma certified by les MINES ParisTech- full-remote Programming, Databases, Machine learning, Big Data, Streaming, Automation, Deployment, Devops.

Project: Development of a travel planning App with POI recommendation: design, implementation, deployment.

EXPERIENCE

Visiting Research Fellow

University of Surrey - full-remote

2020-present Guildford, UK

2023

• data Science/Engineering: Online training for temporal point processes using pytorch and kafka.

Post-doctoral Research Assistant University of Surrey - full-remote

2009-2020 Guildford, UK

2011-2012

- **★ Data Assimilation and Stochastic Point Processes**
 - **Data science**: development of Bayesian filters to analyse and model crime, social and neural networks, Covid19 outbreak...
- Machine learning: insurance risks associated with land subsidence.
- **Data viz**: development of a flask/dash web app to monitor the evolution of the Covid19 outbreak.

* Data Assimilation and Terrestrial Ecosystems

- Development of variational methods for the analysis of the Carbon cycle for terrestrial ecosystems.
- Study of very high resolution satellite imagery together with a terrestrial ecosystem Carbon cycle model to monitor and detect forest degradation.
- Development of variational tools to evaluate the information content of different observation fluxes in Carbon cycle models.
- Development of a matlab interface to analyse the sensitivity for Carbon cycle models.
- **★ Teaching:** Numerical soultions for PDEs
- **★ Communication:** publications, posters, conferences, seminars.