

Quentin Caudron, PhD

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Data scientist passionate about cutting-edge machine learning, teaching, and open-source technology. I love solving complex problems with real-world solutions. I'm a driven developer with an interdisciplinary, technical background, combining academic curiosity with industry productivity.

Professional Experience

Data Scientist, CBRE

March 2016 – Present

Leading the team's data science strategy, and developing analytical tools and machine intelligence capabilities for our products. Implemented bespoke community detection, deduplication, and behavioral analytics models. Responsible for user engagement metrics and reporting.

Postdoctoral Researcher, Princeton University

March 2013 – March 2016

Mathematical and computational modeling of biological processes. Developed statistical tools for the prediction of epidemic sizes in highly stochastic regimes. Built novel algorithms for the rapid, automatic processing of noisy biomedical images. Created and delivered courses in scientific computing that received the highest rating.

Technical Skills

Mathematical : machine learning, applied statistics, algorithms, image processing, graph theory

Programming : expert in Python and Matlab; foundations in C/C++, R, and Julia

Tools : numpy, pandas, scikit-learn, Keras, Django, PostgreSQL, PySpark

Education

PhD Complexity and Computer Science

University of Warwick, 2013

🌐 Thesis : Neuronal Computation on Complex Dendritic Morphologies

MSc Complexity Science (*Distinction*)

University of Warwick, 2009

📖 Dissertation : Biomedical image processing

BSc Chemistry with Management (*Honours*)

University of Warwick, 2008

Teaching and Outreach

🕒 **Introduction to Data Analytics with pandas**, PyData Seattle Conference

July 2017

A two-hour, pair-programmed, live-coded workshop introducing Pythonistas to pandas by walking through an exploratory analysis of a real-world time-series dataset.

🌐 **Advanced Topics on Machine Learning**, learning and discussion group

May 2017 – Present

Organizer of a discussion group covering cutting-edge applications of machine learning. We cover successful Kaggle solutions, production-grade algorithm implementations, and new methods in machine learning.

📖 **Scientific Computing with Python**, Princeton University

October 2013 to March 2016

Course developer and lead instructor; course delivered quarterly to graduate students, postdocs, and faculty, supported by the Princeton Institute for Computational Science and Engineering.

Personal Projects

🌐 **pawprint**, flexible user tracking and analytics with pandas and Postgres.

🌐 **scotch**, a package for simulating Markov processes in Python.