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creative  
 passionate  
 analytical  
 visual

# Gilbert Perrin

Data Analysis & Visualization  
Frontend Engineering  
Business Analysis

French Citizen, born in 1969  
Living in Switzerland (permit C) near Lausanne  
Engineer and 2 Master's degrees

mother tongue - FRENCH  
B2 - ENGLISH

## Profile

I have three areas of expertise that all have in common my curiosity and my passion to understand the underlying business area I'm working on: Data Visualisation, Frontend Engineering and Business Analysis. In addition to this expertise, I'm currently finishing a specialisation in Machine Learning.

## Data Analysis and Visualisation

I design and create different kind of visual representations: complex interactive visualisations (for exploratory analysis) but also static posters or infographics or 'dashboard' views. Either on small datasets or large datasets, it may also include all or some of the different data analysis steps: data requirements, collection, data wrangling, processing, cleaning, exploratory analysis, modeling, product, communication. My goal: combine both aesthetic form and functionality to communicate information clearly and efficiently to the targetted audience.

## Frontend Engineering

I design and develop Frontend Applications, either at components level (visual components integrated into an existing application) or the complete client application. I can also develop quickly UI prototypes (interactive or static) or sketches to support an iterative approach (like Design Thinking) and elaborate complex user interactions and refine my ideas based on stakeholders feedbacks. My goal: constantly paying attention to details!

## Business Analysis

I can gather requirements, write functional specifications and model business process, either as part of a full 'Business Analyst' role or either as part of a 'Product Owner' role in 'scrum' organizations for example.

## Machine Learning

Foundations of Deep Learning, how to build neural networks and how to lead successful machine learning projects.

## Top 6 Soft Skills

ADAPTABILITY CREATIVITY INTERPERSONAL SKILLS PROBLEM SOLVING TEAM WORK TIME MANAGEMENT

## Hard Skills

Non exhaustive list, sorted alphabetically (libraries, frameworks or tools commonly used in development, like git, maven, hibernate, mysql, pynum, jquery, ..., are not listed)

AGILE	DATABASES	JIRA	SPECIFICATIONS
ARCHITECTURE	DEEP LEARNING	MACHINE LEARNING	UI DESIGN
BALSAMIQ	ES6	Node.js®	UX DESIGN
CONFLUENCE	HTML	PRODUCT OWNER	WEB DEV
CSS	J2EE	PROTOTYPING	WIREFRAMES
D3.js	JAVA	PYTHON	
DATA ANALYSIS	JAVA FX	REQUIREMENTS	
DATA VIZ.	JAVASCRIPT	SCRUM	

## Work Experience

2019



1y 2m

### VP Functional & UX Design

healthcare - data-driven medicine

May 2018 - Jul 2019

#### Sophia genetics

- Responsible for all functional requirements and in charge of evolving the SOPHiA Platform and ensure consistency across the business areas
- Managed Feature Requests & Product Backlog
- Approving (sign-off) or rejecting developed Features
- Implementation of prototypes (UI)

2018



3y

### Head of Front-End Development

healthcare - data-driven medicine

May 2015 - Apr 2018

#### Sophia genetics

- Managed & led a team (4p) in charge of development of functional features for the SOPHiA DDM Platform
- In charge of functional requirements & specifications
- Designed & Implemented a Web Application for the administration of the SOPHiA DDM platform, currently used by the Support Team
- Actively participated in 2 CTI projects (Commission for Technology and Innovation, now Innosuisse)
- Developed functional & technical features on the SOPHiA DDM platform (backend & front-end)
- Implemented several web applications and infographics for internal usage (realtime WorldMap for sophia sequencing usage, people faces, statistics, ...)
- Gene / Transcript viewer in d3.js (personal work)

2015



2y

### Data Visualisation Engineer

healthcare - data-driven medicine

May 2013 - Apr 2015

#### Sophia genetics

- Managed the migration of the SOPHiA DDM Platform from a web application to a Java / JavaFX application: architecture, design & implementation of the core components & screens
- Developed core JavaFX components (authentication, visual components, application components ...)
- Designed & implemented a dynamic Circular Genomic Viewer (circo plot) implemented in d3.js & HTML5.

2013



4m

### Data Visualization, Web Developer

healthcare - nonprofit organization

Jan - Apr 2013

#### International AIDS Society

- Designed and implemented an interactive world map for the website of IAS ( International AIDS Society). (javascript, D3.js, SVG, CSS)

2012



3y 2m

### Senior Software Engineer

finance - private banking

Aug 2009 - Oct 2012

#### Pictet Asset Management

- Business and Technical analysis and development on a Web CRM
- Business and technical analysis of a new cash management module for a Portfolio Management System - design & implementation of both server and client side.

2009



1y 1m

### One sabbatical year stuying Photography

photography

Jun 2008 - Jul 2009

#### Photography

- Courses, self-training, travel (Canada), photoreports
- 4 months photo-reporter internship at Police Cantonale Vaudoise
- Photographer at 'La nuit des musées, Lausanne' several years (2009, 2010, 2011, 2012).

## Work Experience cont.

2008

6m

### Senior Software Engineer

RTS - Radio Télévision Suisse

broadcast media

Jan - Jun 2008

- Architecture, design and implementation of a Workflow-based collaborative application for the completely tapeless, digital production of television programs - architected around REST principles for data integration
- Wrote use-case catalog, architecture, component and framework selection, implementation planning, design and implementation.

2007

2y

### Senior Software Engineer

Neo Technologies

industry - energy

Jan 2006 - Dec 2007

- Re-engineering of the in-house electricity-management logistics platform to open it to third parties and to extend the range of managed goods to gas, digital media, etc
- Reverse-engineered use-cases, sequence and class diagrams of the pre-existing system
- Wrote new use-cases and specifications by interviewing all platform stakeholders
- Architected, designed, implemented the augmented system.

2005

1y 4m

### Senior Software Engineer

Pictet Asset Management

finance - private banking

Sep 2004 - Dec 2005

- Analysis and design of an infrastructure for notification of changes between applications
- Specific implementation for cache invalidation of the pms application
- Architecture and design of a batch framework which provides an asynchronous, server-based batch processing environment that can wrap, execute and monitor business tasks.

2004

8m

### Senior Software Engineer

DALIN Software SA

finance - private banking

Jan - Aug 2004

- Developed a knowledge-based interface (API java 2d) - developed a prototype
- Analysis of a natural language query system - produced analysis and design specifications.

2004

3y 7m

### Java J2EE Senior Developer

Odyssey Asset Management

finance - private banking

Jul 2000 - Jan 2004

- Design and implementation of a business tag-library to communicate with EJB service layer
- Design of web components - technical person in charge of the EJB layer - responsible for the programming, packaging and deployment environments.

2000

2y

### Java Developer

BIPE

industry - telecommunication

Jul 1998 - Jun 2000

- The principal activity was the migration and the development of an existing data warehouse under (4D) towards new technologies Java and Web within a team of 4 people

1997

2y 3m

### Thermal Engineer and Data Scientist

Spie Batignolles

industry - energy

Apr 1995 - Jun 1997

- Head of a Computation Group working on Operational Projects
- Analysis and calculations of the air-conditioning of an enclosure of storage of nuclear waste in Novossibirsk (Siberia)
- Design and sizing of smoke-evacuation in tunnels using the SES (Subway Environmental Simulation) software
- New module implementation (FORTRAN) taking account a new physical model.

## Education

1998

1y

### Master's degree in Computer Science

DESS IAO

computer science  
Sep 1997 - Aug 1998

- One year post graduate degree with honours: algorithms, programming languages (Java, C++), database systems, operating systems, language processing, software engineering, multimedia, networks.

1994

1y

### Master's degree in Thermodynamics and Fluid Mechanics

IUSTI - CNRS

physics, data science  
Sep 1993 - Aug 1994

- One year post graduate degree with honours: Thermodynamics in open systems, fluid mechanics, energy, statistical thermodynamics, mathematics, physical transfer in complex fluids, ...

1993

3y

### Three Years Engineering School - Energy, Thermics & Fluid Mechanics

IUSTI - CNRS

physics, data science  
Sep 1990 - Aug 1993

- Bachelor + 5
- Power systems, physics, heat and mass transfers, numerical modelling, advanced materials, ...

1990

2y 1m

### Classe Préparatoire - Math SUP/SPE

Lycée Militaire Aix-en-Provence

mathematics  
Sep 1988 - Sep 1990

- Mathematics and Philosophy

## Certificates

2019

4m

### Deep Learning Specialization

[Coursera Specialization by Stanford University.](#)

machine learning  
Jul - Nov 2019

Foundations of Deep Learning, understanding how to build neural networks, and learn how to lead successful machine learning projects. Convolutional networks, RNNs, LSTM, Adam, Dropout, BatchNorm, Xavier/He initialization, and more. Implementation in Python, numpy and TensorFlow.

CERTIFICATE(S): [C1](#) [C2](#) [C3](#) [C4](#) [C5](#) [PERSONAL NOTES](#)

2018

1m

### Introduction to the Biology of Cancer

[Coursera Specialization by Stanford University.](#)

biology - genetics  
Jan - Feb 2018

Molecular biology of cancer (oncogenes and tumor suppressor genes) as well as the biologic hallmarks of cancer. The course also describes the risk factors for the major cancers worldwide, including lung cancer, breast cancer, colon cancer, prostate cancer, liver cancer, and stomach cancer.

CERTIFICATE(S): [C1](#)

2012

3m

### Infographics and Data Visualization

[Knight Center for Journalism in the Americas](#)

data visualization  
Sep - Dec 2012

Knight Center for Journalism in the Americas: Data Journalism and Visualization with Free Tools.

CERTIFICATE(S): [C1](#)

## Additional Activities & Interests



### Running

I try to run at least 20 km per week, you can catch me on Strava and during the different 10K courses at Lausanne.



### Photography

I practice Photography as mentioned in the Experience section, this is a domain where I can express my creativity, please have a look at <https://500px.com/search?q=ig2gi&type=photos>



### Readings

I try to read at least 2 books per month. My preferred genres: Philosophical, Informational, Sciences and Science Fiction. My last 3 books:

- 'Factfulness' by Hans Rosling (2019)
- 'Enlightenment Now: The Case for Reason, Science, Humanism, and Progress' by Steven Pinker (2018)
- 'The Art of Statistics: Learning from Data' by David Spiegelhalter (2019)