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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  
ARCHITECTURE  
BALSAMIQ  
CONFLUENCE  
CSS  
D3.js  
DATA ANALYSIS  
DATA VIZ.

DATABASES  
DEEP LEARNING  
ES6  
HTML  
J2EE  
JAVA  
JAVA FX  
JAVASCRIPT

JIRA  
MACHINE LEARNING  
Node.js®  
PRODUCT OWNER  
PROTOTYPING  
PYTHON  
REQUIREMENTS  
SCRUM

SPECIFICATIONS  
UI DESIGN  
UX DESIGN  
WEB DEV  
WIREFRAMES

## Work Experience

2019

Jul  
(6 years, 2 months)

### Sophia genetics

healthcare - data-driven medicine

#### VP Functional & UX Design

May 2018 - Jul 2019

- 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)

#### Head of Front-End Development

May 2015 - Apr 2018

- 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)

#### Data Visualisation Engineer

May 2013 - Apr 2015

- 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 (circos plot) implemented in d3.js & HTML5.

May 2013

2013

Apr  
(4 months)

### International AIDS Society

healthcare - nonprofit organization

#### Data Visualization, Web Developer

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

Jan

2012

Oct  
(3 years, 2 months)

### Pictet Asset Management

finance - private banking

#### Senior Software Engineer

- 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.

Aug 2009

2009

Jul  
(1 year, 1 month)

### Photography

photography

#### One sabbatical year stuying 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).

Jun 2008

## Work Experience cont.

2008

Jun  
(6 months)

Jan

### RTS - Radio Télévision Suisse

broadcast media

#### Senior Software Engineer

- 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

Dec  
(2 years)

Jan 2006

### Neo Technologies

industry - energy

#### Senior Software Engineer

- 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

Dec  
(1 year, 4 months)

Sep 2004

### Pictet Asset Management

finance - private banking

#### Senior Software Engineer

- 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

Aug  
(8 months)

Jan

### DALIN Software SA

finance - private banking

#### Senior Software Engineer

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

2004

Jan  
(3 years, 7 months)

Jul 2000

### Odyssey Asset Management, Temenos

finance - private banking

#### Java J2EE Senior Developer

- 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

Jun  
(2 years)

Jul 1998

### Le BIPE, BDO Advisory

industry - telecommunication

#### Java Developer

- 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

## Work Experience cont.

1997

### Spie Batignolles

industry - energy

Jun  
(2 years, 3 months)

#### Thermal Engineer and Data Scientist

- 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.

Apr 1995

## Education

1998

### Master's degree in Computer Science

computer science

Aug  
(1 year)

#### DESS IAO

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

Sep 1997

1994

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

physics, data science

Aug  
(1 year)

#### IUSTI - CNRS

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

Sep 1993

1993

### Three Years Engineering School

physics, data science

Aug  
(3 years)

#### IUSTI - CNRS

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

Sep 1990

1990

### Classe Préparatoire - Math SUP/SPE

mathematics

Aug  
(2 years)

#### Lycée Militaire Aix-en-Provence

Mathematics and Philosophy

Sep 1988

## Certificates

2019

Nov  
(4 months)

### Deep Learning Specialization

machine learning

#### Coursera Specialization by Stanford University.

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

Jul

2018

Feb  
(1 month)

### Introduction to the Biology of Cancer

biology - genetics

#### Coursera Specialization by Stanford University.

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

Jan

2012

Dec  
(3 months)

### Infographics and Data Visualization

data visualization

#### Knight Center for Journalism in the Americas

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

CERTIFICATE(S): C1

Sep

## 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)