

# 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 3 axis of competencies, which all have in common my curiosity and passion to understand the underlying business domain I'm working on.

# 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!

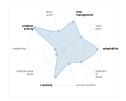
### **Business Analysis**

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.

### Skills

### Top 5 Soft Skills

ADAPTABILITY CREATIVITY PROBLEM SOLVING TEAM WORK TIME MANAGEMENT



See ig2gi.github.com for more details.

### Hard Skills

Non exhaustive list of skills, sorted alphabetically.

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

Note: the purpose of this list is to give an overview of skills but not to list all the libraries, frameworks or tools commonly used in development (eg: git, svn, maven, hibernate, ejb, mysql, pynum, jquery, ...).

# **Certificates**

# **Deep Learning Specialization**

machine learning

3m

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

### 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

2012

3m

### 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

# Work Experience

## **VP Functional & UX Design**

healthcare - data-driven medicine

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)

### **Head of Front-End Development**

healthcare - data-driven medicine

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 participed 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)

# Work Experience cont.

# **Data Visualisation Engineer**

healthcare - data-driven medicine

### Sophia genetics

- $\cdot$  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.

### Data Visualization, Web Developer

healthcare - nonprofit organization

International AIDS Society

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

### **Senior Software Engineer**

finance - private banking

3y 2m

- 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.

### One sabbatical year stuying Photography

photography

### **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).

# 2008

# Senior Software Engineer

broadcast media

RTS - Radio Télévision Suisse

- · 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.

1 y 4 m

# Senior Software Engineer

industry - energy

# Neo Technologies

- · 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.

# Work Experience cont.

## **Senior Software Engineer**

finance - private banking

- Pictet Asset Management
- · 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.

# 2005

# Senior Software Engineer

finance - private banking

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

# Java J2EE Senior Developer

finance - private banking

- Odyssey Asset Management
- · 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.

### Java Developer

industry - telecommunication

**BIPE** 

· 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

### Thermal Engineer and Data Scientist

industry - energy

# Spie Batignolles

- · 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**

## Master's degree in Computer Science **DESS IAO**

computer science

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

# Master's degree in Thermodynamics and Fluid Mechanics

physics, data science

**IUSTI - CNRS** 

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

CERTIFICATE(S): IUSTI - CNRS

# Three Years Engineering School - Energy, Thermics & Fluid Mechanics physics, data science **IUSTI - CNRS**

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

CERTIFICATE(S): IUSTI - CNRS

# Classe Préparatoire - Math SUP/SPE

mathematics

Lycée Militaire Aix-en-Provence Mathematics and Philosophy

CERTIFICATE(S): LYCÉE MILITAIRE AIX-EN-PROVENCE