



Julien Hericher

Senior geotechnical engineer and scientific application developer

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Profile

Senior Geotechnical Engineer with 14-year experiences in the geotechnical field, including 12 years in the offshore industry. Specialised in soil mechanics, geotechnical engineering and also in programming related to geotechnical and general engineering applications (JavaScript, Python, Mathcad and MacroVBA Excel).

In addition, I have skills in web design and programming. Enthusiast photographer mainly for nature and travel photography. Passionated with Qigong and Tai Chi practice.

I live in Stavanger (Norway) since 2013. I speak 3 languages: French (native language), English (fluent) and Norwegian (B1 level, ongoing learning).



Education

September 2001 - September 2004 - Polytech'Grenoble, France (Grenoble)

Engineering school dedicated to geotechnical and geophysical sciences. This applies in various onshore and offshore fields (foundation design, natural hazard prevention...).

September 1999 - September 2001 - Physical Measurement Technician, IUT, France (Evreux)

A two-year diploma about data measurements in several domains such as chemistry, optics, biology, fundamental physics, acoustic...

June 1999 - Scientific Baccalaureate, Option Biology, France (Rouen)



Experiences

April 2018 - To Now - Subsea 7 Norway AS, Norway (Stavanger)

Part-time senior geotechnical engineer within the geotechnical discipline.

My main task, aside from project support (i.e. for sliding foundation for Wintershall Nova project), is to develop/standardize/improve any aspect of the engineering delivery with the main focus on developing calculation tools that allow automatic calculation and reporting for various foundation design.

This set of applications is known as Geo7 (name subject to change) and currently covers:

- Suction caisson design in clay;
- Installation feasibility of suction piles in mixed soil conditions with a parametric approach;
- Pipe-soil interaction (with controlled collaboration with the pipeline discipline);
- Various scripts that automate building Plaxis 3D models.

January 2017 - To Now - Freelancer, Norway (Stavanger)

Freelancer in geotechnical engineering and for software design/coding, especially for applied science and engineering.

My main task related to GeoScience is an application currently in development for the NGI (for the onshore department).

This application automates CPT raw data analysis together with lab test results and allowing the user to define various stratigraphy for a given borehole and derive design profiles (Su, St...) using different set of methods (Karlsrud 2005, Nkt, Ndu...).

The application is expected to be completed this year with the integration of the offshore department requirements.



Experiences (continued)

April 2013 - December 2016 - Subsea 7 Norway AS, Norway (Stavanger)

Full-time senior geotechnical engineer in the worldwide leader in the subsea business.

I worked for several projects in the Norwegian territories, for different soil conditions, complex structures...

Within those years, the key points are:

- Leading full geotechnical expertise for three major projects (Equinor Åsta Hansteen and Oseberg Delta 2; Wintershall Maria) and full support for several including complex ones (i.e. Australian project where we have designed the foundation for emergency repair tools that should operate in any soil condition from very soft carbonate clay to dense sand, North Sea rectification template...);
- Suction anchor design for the first SPAR structure in the North Sea. This design includes all the geotechnical assessment such as installation, stability of the anchor by means of 3D finite element analysis;
- On pipeline installation, covering several aspects such as interfacing with the pipelines engineers, giving soil parameters, designing rock berms, GRP cover design and providing support for any geotechnical aspect;
- Designed an approach for sliding PLET on rock berms (used for Wintershall Maria project);
- Participated in an offshore campaign for deep foundation levelling for a Norwegian project;
- Designed an innovative integrated software for geotechnical foundation sizing in form of a web application and in the development of the first 3D Finite Limit Equilibrium Analysis (FELA) software in collaboration with the Oxford University (UK);
- Developed various Excel spreadsheets for gravity foundations, settlements, automated CPT plots versus depth but as well on 2D contour maps;
- Was the lead engineer for Plaxis 2D and 3D from 2015 to 2016.

January 2006 - December 2012 - Fugro Geoconsulting, France (Paris)

Full-time geotechnical engineer in a worldwide geotechnical consultancy.

Within Fugro group, Fugro GeoConsulting S.A. (formerly Fugro France) is specialised in soils offshore France, West Africa & Middle East; and in subsea structures such as shallow foundation, suction anchor, and piles.

I spent the first 2 years as an engineer performing global site investigations from recovering samples onboard geotechnical vessel to report delivery; and all the steps in-between including onshore laboratory management.

After those 2 years, I specialised myself in:

- Engineering: foundation design, stability and installation studies for a range of structures including suction anchors, mudmats, driven and drilled/grouted piles; and in various soil types such as clay, sand, chalk and calcareous formations;
- R&D: I was in charge of software developments mainly for the engineering but also for GIS.

It is worth mentioning as well, I worked on the first offshore wind farm project for the French west coast. The soil conditions were challenging as the seabed is mostly composed of brittle chalk and this was an opportunity to further refine our knowledge in cyclic soil degradation and monoply study.

September 2004 - July 2015 - IMSRN, France (Grenoble)

Full-time geotechnical engineer in a geotechnical consultancy specialised in onshore natural hazard assessment (slope stability, flooding...) and in geotechnical expertise for foundation design.

As an engineer, I was in charge of a 5-person team during fieldwork and in the office.

I performed a wide range of studies related to natural hazard from field acquisition (by means of SPT, seismic refraction, gravimetry, radar, resistivity method, trenching...) to report delivery (including engineering report, Autocad charts for stability solutions...).