



Szilárd Dénes

Geologist / Developer

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ABOUT

Geologist with 10+ years in the hydrocarbon industry, combining analytical expertise with programming skills to solve complex problems and automate workflows. I am deeply engaged in programming and solving technical problems through code.

Freelance geoscientist consultant since 2022, worked with petroleum companies on hydrocarbon exploration. I am interested in joining forward-looking projects in GIS, geothermal, and advancing technologies.

Currently building our off-grid home at Gyűrűfű. The project applies the same project management and problem-solving approach I use in my technical workflows.

RECENT PROJECTS

GeoHog — <https://geohog.com>

English-language geothermal reference for the Pannonian Basin — articles, well database, GIS layers, and a knowledge base. Founder.

SKILLS

Geology Skills

Seismic interpretation (2D-3D) AVO analysis Well Ties Geo-Modelling Petroleum System Analysis (PSA)
Risking (source/seal/pathway/trap) Data integration Database building Time -> Depth Modelling GIS Workflows
Structural & fracture interpretation Fault & fracture network modelling Geothermal exploration

Geoscience Software

WORK EXPERIENCE

SolServices

Feb 2026 – Present

Geoscience Consultant

Structural interpretation of a geothermal play in the Pannonian Basin. Building the fault-and-fracture framework from seismic and wells, and depth-domain reservoir characterisation for the reservoir-modelling team.

- Built the fault-and-fracture framework from 3D seismic and well control.
- Mapped permeable fault corridors and reservoir geometry.

Folyópart Energia Kft

Mar 2026 – Apr 2026

Exploration Geologist

Structural and fracture interpretation of a fractured volcanic reservoir, mapping the fracture network that feeds the reservoir model.

- Multi-attribute seismic facies analysis of the fractured volcanics.

Mhyner Geoconsulting Kft

Nov 2024 – Present

Geoscience Consultant (periodic)

Periodic freelance contributions - providing specialized support for growing initiatives. Building a geological database from seismic and well data and performing semi-regional interpretation work.

Sand Hill Petroleum BV

Apr 2024 – Dec 2024

Exploration Geologist

Undertook a comprehensive interpretation of a new 500 km² 3D seismic dataset, delivering risk analysis, ranking, and peer review materials for multiple prospects.

- Helped the systematic interpretation of a 500 km² 3D seismic dataset.
- Performed quality control on seismic and gather data for accuracy.
- Conducted AVO analysis in Paleoscan to evaluate hydrocarbon potential.
- Prepared peer review materials, identifying and analyzing key prospect risks.
- Evaluated and ranked 12-15 prospects based on hydrocarbon phase and volume.
- Delivered detailed volume calculations for prospect assessment.

O&GD Development Kft

Oct 2023 – Dec 2023

Exploration Geologist

Provided geological expertise and support in AVO analysis for evaluating multiple prospects.

- Conducted AVO analysis on several prospects to assess hydrocarbon potential.
- Collaborated with interpreters to provide geological insights and support.
- Enhanced the geological understanding of prospects for decision-making.

Sand Hill Petroleum BV

May 2023 – Oct 2023

Exploration Geologist

Managed data quality, AVO analysis, and geological interpretation for prospect evaluation and Peer Review preparation.

- Cleaned and organized IHS Kingdom project data with consistent naming conventions
- Executed AVO analysis on prospects including Pre-Stack and Post-Stack analysis
- Conducted prospect comparisons with analogs to predict fluid types
- Provided geological interpretation support including cross-sections and isopach maps
- Executed detailed horizon and fault mapping at prospect scale
- Contributed to Prospect Ranking and Peer Review preparation

O&GD Development Kft

Apr 2023 – May 2023

Data Entry Specialist

I worked on an IHS Kingdom project designed for data room usage, involving efficient and technical handling of datasets and software.

- cleaning the project by removing non-relevant data (e.g., well data, cultural data, seismic data) outside the AOI
- ensuring consistent naming conventions for horizons and grids
- segmenting 3D and 2D seismic data according to block boundaries
- organizing data into Collections for each prospect
- composing comprehensive and searchable documentation within the framework of the data room presentation, emphasizing crucial information

North American Helium

Nov 2022 – Apr 2024

Data Entry Specialist

Periodical freelance contribution: I specialize in using IHS Kingdom Software to load 2D and 3D seismic surveys, load data, and perform data quality control. I have extensive experience in using IHS Kingdom Software and have developed expertise in data loading and quality control techniques.

- loading 2D and 3D seismic surveys into Kingdom software
- loading of 2D and 3D gathers
- loading any kind of data
- performing data quality control
- converting coordinates from different UTM zones using QGIS

Geoszféra Kft

Feb 2023 – Jul 2023

Freelance Developer

As a Developer at Geoszféra Kft. I am responsible for revisiting Excel VBA Addons created by a former colleague. My role involves reviewing and modifying the code to ensure that it is functional, efficient, and error-free. To help users understand how to use these add-ons, I also write documentation that explains the purpose, functionality, and usage of each tool.

- I clean up the existing Excel add-ins to remove any unnecessary code, optimize performance, and make them more user-friendly. This involves restructuring the code, renaming variables, and adding comments to make it easier to read and understand.
- If necessary, I also rewrite the add-ins in a more modern programming language, such as C#.
- Throughout my work, I focus on delivering high-quality code and documentation that meets the needs of the end-users. By doing so, I help to ensure that our geotechnical engineering teams have access to the tools they need to do their jobs effectively.

Geohisztor Kft

Jan 2023 – Jan 2026

Freelance Developer

As a web developer at Geohisztor Kft, I design and develop their website from start to finish. We are partners and continue to work together.

- Logo designed by me
- UI/UX designed by me
- Built with Astro, hosting and management

Soler Partners Kft

Apr 2022 – Feb 2023

Freelance Developer

I transferred a company's data, projects, and workflows from excel files and folders into the Odoo ERP (Enterprise Resource Planning) system. Besides, I built a VBA-based Excel program that generates documents with a given database and different PDF templates.

- Email lead integration in the system
- Writing workflow automation and data validations in Python
- Creating custom reports in Odoo studio, using HTML and CSS
- Database build and management
- Python scripts to solve various problems in Odoo

O&GD Development Kft

Jul 2015 – Sep 2022

Exploration Geologist

Detail-oriented geology work, with multidisciplinary approach to exploration from basin scale (PSA - Petroleum System Analysis) to seismic interpretation and prospect generation. High-level data integration, including wells, seismic and geochemistry. Everyday problem solving and workflow optimization at any level (geology, data, software).

- Independently generated an inventory prospects, with several advanced to peer review stage and subsequent approval for drilling.
- Handled levels of responsibilities far beyond my experience level
- Seismic interpretation, prospect and lead generation plus basic geophysical work on Hungarian and Romanian assets in team
- Completing Petroleum System Analysis (PSA) projects for the OGD's focus areas
- Involved in international data rooms and License Round evaluations
- Hydrocarbon migration modelling to address the migration risk in the prospect evaluation process
- Data mining, various geodatabase building (excel VBA scripting and ArcGIS)

Geogold Kárpátia Kft

May 2015 – Jun 2015

Field Geologist

Fieldwork -> VES (Vertical Electric Surveying) study in NW Romania.

Szekler Resources LTD

Jul 2014 – Aug 2014

Geologist

Technical work and support for a micropaleontological study.

SC Geosearch SRL

Apr 2014 – Jul 2014

Field Geologist

Fieldwork -> geotechnical drilling/surveying.

EDUCATION

Babeş-Bolyai University

Sep 2009 – Jul 2013

BSc - Department of Geology

Thesis: 3D modelling of Simonesti gas field, based on sequence stratigraphy

Babeş-Bolyai University

Sep 2013 – Jul 2016

MSc - Geology of Sedimentary Basins

Thesis: An approach on HC migration modelling for the Jászság-basin, Hungary

CERTIFICATIONS

Foundational C# with Microsoft

Feb 2025

Microsoft Developer Division | freeCodeCamp.org

AWARDS

2nd place

Transylvanian Student's Scientific Conference | 2012

The macrofossils of the Brüll viewpoint

2nd place

Contest under the POSDRU program | 2014-11-01

Mineralogical study of the Neogene hydrothermal mineralisation at Gura Baii Mountains, Bistrița Năsăud County, Romania

WORK AVAILABILITY

Based in Győrűfű, Hungary, I work remotely with a full professional home office setup. My schedule is flexible—I can adapt to different time zones, join meetings as needed, and work beyond standard hours when projects require it. All workflows can be conducted online efficiently.

LANGUAGES

Hungarian: Native proficiency | **Romanian:** Working proficiency | **English:** Professional proficiency