Damian Kula

Profile

A highly young professional who is using his programming skills to deal with data, mostly seismological. Seeking for an position in data science industry to be able face new challenges all the time. With more than five years of experience in solving scientific problems with programming and half of a year on a junior backend developer position he proved to be able to quickly adapt and learn new technologies. Currently finished working on project focused on Ambient Seismic Noise monitoring of gas and geothermal reservoir where he was trying to bring the best technological approach to the world of science. He tackled a lot of data engineering and data science tasks such as data aggregation, processing and visualization using production grade technological stack including Python, Flask, Apache Airflow, Docker, Docker Compose and PostgreSQL.

Experience

Oct 2017 – Jan 2020	**PhD Student in Seismology**, *Institut de Physique du Globe de Strasbourg*.
Responsibilities	Leading a scientific project concerning monitoring of deep reservoirs with ambient seismic noise in collaboration with industrial partners from Storengy SAS and ES Géothermie. Project supervised by Jérôme Vergne (IPGS), Jean Schmittbuhl (IPGS), Alexandre Kazanstsev (Storengy) and Vincent Maurer (ESG). Installation and maintenance of broadband seismic network. Creating a pipeline for continous fetching, processing and analysis of Ambient Seismic Noise
Technological stack	Python, Apache Airflow, Flask, PostgreSQL, Docker, Jupyter
Apr 2017 – Sep 2017	**Junior Java Developer**, *ACC Cyfronet AGH*.
Responsibilities	Backend development of IS-EPOS online scientific platform. Developing seismological data processing scripts.
Technological stack	Java, Spring, MongoDB, GWT, Angular. Additionally Python with use of ObsPy, Numpy, Scipy.
May 2016 – Nov 2016	**Intern**, *Institute of Geophysics, Polish Academy of Sciences*. Internship coordinator Dorota Olszewska, PhD.
Responsibilities	Seismic data processing for purpose of HVSR method. Creating and maintaining database of PGA parameters for LGCD region.
Jun 2015 – Jul 2015	**Intern**, *Institute of Geophysics, Polish Academy of Sciences*. Internship coordinator Dorota Olszewska, PhD.
Responsibilities	Seismic signal processing in Matlab; HVSR method inplementation in Matlab
Jan 2015 – Oct 2017	**Member of a scientific project**, *University of Silesia in Katowice*. Project leader: dr hab. Wojciech Dobiński, University of Silesia, Department of Earth Science. Participant of the Scientific Expedition to the Spitsbergen in Aug - Sep 2015
Responsibilities	Preparing and conducting Electrical Resistivity Tomography surveys; Data processing and interpretation

Programming

Python	4 years of experience	*Obspy, Scipy, Numpy, Matplotlib, Pandas, Flask, SQLalchemy*
Java	1 year of experience	*Spring, Springboot, GWT*
SQL	2 years of experience	
Minor experience	R, Matlab	
Utilities	Docker, Docker Compose, Apache Airflow, Git, Latex, Bash	
Continous Intergration	GitlabCI Pipelines, TravisCI, CircleCI	
Databases	SQLite, PostgreSQL, MongoDB	

Languages

Polish	Native
English	C1	*Full professional fluency*
French	Elementary
Russian	Elementary

Education

Oct 2015 – Jul 2017	**Master of Science in Geophysics**, *University of Silesia in Katowice.*
Thesis title	Seismic noise analysis for purpose of Active Layer of Permafrost investigations in a region of Polish Polar Station in Hornsund, Svalbard
Supervisor	Dorota Olszewska, PhD. Institute of Geophysics, Polish Academy of Sciences
Keywords	HVSR, Local effects, Python, ObsPy, Matlab, Git.
Oct 2012 – Jun 2015	**Bachelor of Science in Geophysics**, *University os Silesia in Katowice.*
Thesis title	Seismic network optimization in the LGCD area with use of simulated annealing algorithm
Supervisor	Maciej Mendecki, PhD. University of Silesia
Keywords	Matlab, Monte Carlo Sampling, D-optimum solution.

Voluntary Services

Oct 2015 – Aug 2016	**Organizing Committee Member**. 7th International Geosciences Student Conference in Katowice, 11th -14th July 2016
Responsibilities	Organization of worldwide sceintific conference for 150 students and young professionals as a core member of organizing committee
Jan 2016	**Volunteer**, *Biebrza National Park, Poland..*
Responsibilities	Data preparation, processing and preparing for publishing in form of maps using ArcGis software.
Oct 2014 – May 2015	**Organizing Committee Leader**. VIII Student Scientific Workshops Geosfera 2015 in Żory, 23-26th April 2015
Responsibilities	Organization of scientific conference for 130 students as leader of organizing committee

Grants and Awards

2016	— Best Student Poster Award of Session 18 during 35th General Meeting of European Seimological Commision, Trieste 2016
	— Travel grant to participate in Advanced School on Seismology Beyond Textbooks & 35th General Meeting of European Seimological Commision, Trieste, 2016
2015	— Travel Grant to participate in Society of Exploration Geophysicists & Chevron Student Leadership Symposium, New Orleans, 2015.
2012	— Winner of the XVI Contest of Technical Knowledge 2012, organized by University of Silesia in Katowice(XVI Konkurs Wiedzy Technicznej).

Personal interests

- Hiking, running, swimming, mountain biking, polar regions
- Technology, IT, programming
- Seismology, geophysics, statistics, data science