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Dr. Anne Goujon
Austrian Academy of Sciences, Vienna
Institute of Demography - VID
Welthandelsplatz 2
1020 Wien

March 5, 2018

Subject: Application as Research Assistant

Dear Dr. Goujon,

After several years as a research assistant at the Institute of Geography of the University of Innsbruck, I am currently writing my PhD thesis and relocating to Vienna. The advertised position as research assistant appeals to me in that it presents the possibility to continue working in a scientific environment and apply the skillset I have acquired to a new, interesting field of research. Additionally, the option of a part time position would allow me to finish my thesis with the title *Digital terrain analysis to support field soil survey*.

Ever since working as a research assistant at the University of Natural Resources and Life Sciences, Vienna (BOKU), the collection, preparation and evaluation of data has been part of my work. For these tasks, R, the free programming language for statistical computing has been my tool of choice. Descriptive statistics and the visual interpretation of scatterplots and other graphical data representations were invaluable for analysing data on natural hazards at the BOKU. At the Institute of Geography at the University of Innsbruck I applied further techniques for investigating relationships between variables in data sets, for instance machine learning approaches with R. Additionally, I had the chance to teach the course *Statistics with R* for two semesters. As both soil and terrain data, which represent the subject of investigation of my PhD thesis, are spatial data, geographic information systems (GIS) are my second area of expertise. While I started off with ArcGIS as a student and tutor, I have now specialised on the use of Open Source GIS such as GRASS, SAGA and QGIS, and combine the various tools with Python or R scripts.

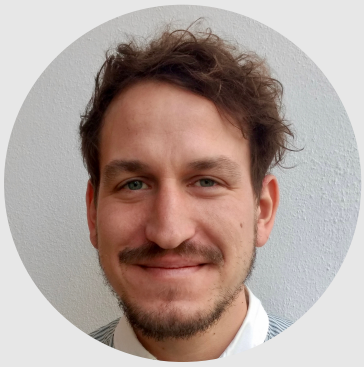
In addition to my experience with the analysis and visualisation of data using R and GIS, I am also used to, and enjoy, working in teams made up of experts from different fields of research. I have enclosed a resume with references, and would enjoy discussing this position at your convenience. Should you require any additional material or information, I am happy to supply it.

Thank you for your consideration.

With best regards,

Fabian Gruber

Attached: Resume



Fabian Gruber

Research assistant

22 June 1982

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Skills

- R programming language
- Python programming language
- GRASS GIS
- QGIS
- Arc GIS
- Scientific writing
- LINUX (Ubuntu)
- MS- & libreOffice
- GIMP and Inkscape
- LaTeX & BibTeX
- German
- English
- Spanish & French

Areas of expertise

Data analysis: Descriptive statistics und data visualisation with R

Geographic information science: ArcGIS & Open Source GIS (GRASS, SAGA, QGIS, GDAL/OGR)

Statistical models: Machine Learning and (logistic) regression with R

Physically-based models: BREACH, FLO-2D, RAMMS, DAN3D

Soil science: Digital soil mapping, soil function evaluation, soil classification

Geology: Soil parent material mapping, geohydrology

Remote Sensing: Natural hazard mapping, automated imagery classification, accuracy assessment]

Experience

2013 – 2018	Research Assistant	Institute of Geography, University of Innsbruck
2016 – 2017	Lecturer	Statistics with R, University of Innsbruck
2011 – 2013	Research Assistant	Institute of Applied Geology, BOKU Vienna
2009 – 2010	Student tutor	Introduction to GIS, BOKU Vienna
2009 – 2010	Project assistant	Institute of Applied Geology, BOKU Vienna

Education

2013 –	PhD Geography	University of Innsbruck
2002 – 2011	Diploma Study of Environmental Engineering & Water Management	BOKU Vienna
2001 – 2002	Civilian Service	Arbeitersamariterbund, Linz
1993 – 2001	High school (International Baccalaureate)	Linz International School
1991 – 1993	Elementary School	Linz
1989 – 1991	Elementary School	Pittsburgh, PA, USA

References

Clemens Geitner	+43 507 54037 clemens.geitner@uibk.ac.at	Institute of Geography, Universität Innsbruck
Martin Mergili	+43 1 47654 87219 martin.mergili@boku.ac.at	Institute of Applied Geology, BOKU Vienna
Martin Rutzinger	+43 507 49480 martin.rutzinger@oeaw.ac.at	Institute of Interdisciplinary Mountain Research, Austrian Academy of Sciences

Selected publications

Geitner, C., Baruck, J., Freppaz, M., Godone, D., Grashey-Jansen, S., Gruber, F. E., Heinrich, K., Papritz, A., Simon, A., Stanchi, S., Traidl, R., von Albertini, N., Vrscaj, B., 2017. Chapter 8 - Soil and Land Use in the Alps - Challenges and Examples of Soil-Survey and Soil-Data Use to Support Sustainable Development. In: Pereira, P., Brevik, E. C., Munoz-Rojas, M., Miller, B. A. (Eds.), Soil Mapping and Process Modeling for Sustainable Land Use Management. Elsevier, pp. 221 – 292.

Gruber, F. E., Baruck, J., Geitner, C., 2017. Algorithms vs. surveyors: A comparison of automated landform delineations and surveyed topographic positions from soil mapping in an Alpine environment. Geoderma 308, 9 – 25.

Gruber, F. E., Mergili, M., 2013. Regional-scale analysis of high-mountain multi-hazard and risk indicators in the Pamir (Tajikistan) with GRASS GIS. Natural Hazards and Earth System Sciences 13 (11), 2779–2796.

Zieher, T., Perzl, F., Gruber, F., Rutzinger, M., Meißl, G., Geitner, C., 2016. Data requirements for the assessment of shallow landslide susceptibility using logistic regression. In: Landslides and Engineered Slopes. Experience, Theory and Practice. CRC Press, pp. 2139–2146.

Interests

Travelling: Central America, Central and Southeast Asia, Madagascar, Antarctica
Horticulture: Community gardening at Waldhüttl, Innsbruck