Programme Development and Management Unit United Nations Office on Drugs and Crime Vienna, Austria March 13, 2018

Subject: Application as Geographic Information Officer

To whom it may concern,

After several years as a research assistant at the Institute of Geography of the University of Innsbruck, I am currently writing my PhD thesis with the title *Digital terrain analysis to support field soil survey* and relocating to Vienna. The advertised position appeals to me in that it presents the possibility to continue working in the field of remote sensing and geographic information science and at the same time represents a new, exciting field of research to which I can apply the skillset I have acquired.

Ever since working as a project assistant at the University of Natural Resources and Life Sciences, Vienna (BOKU),remote sensing and the use of geographic information systems have been part of my work. There, I applied satellite imagery and digital terrain models to map natural hazards, both through visual inspection but also automated procedures. Later as a research assistant I applied image classification to investigate the areal change of glaciers in remote areas of Tajikistan for a hazard assessment. 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. As a research assistant at the Institute of Geography at the University of Innsbruck, I applied these skills to modeling landforms and soil parent material based on digital terrain models and different machine learning approaches. For the latest research project I was employed in, I worked on assessing the results of an object-based image classification approach for mapping shallow landslides.

In addition to my experience with remote sensing, GIS and data analysis with R, 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

I₄T_FX & BibT_FX

German

English

Spanish & French

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

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

Data analysis: Descriptive statistics und data visualisation with R Statistical models: Machine Learning and (logistic) regression with R

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

Geology: Soil parent material mapping, geohydrology

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

2013 -	PhD student in Geography	University of Innsbruck	k
2002 - 2011	Diploma Study of Environmental Engineer	ing & BOKU Vienna	\mathbf{a}
	Water Management		
2001 - 2002	Civilian Service An	rbeitersamariterbund, Lin	\mathbf{z}
1993 - 2001	High school (International Baccalaureate)	Linz International School	ol
1991 - 1993	Elementary School	Lin	\mathbf{z}
1989 - 1991	Elementary School	Pittsburgh, PA, USA	4

References

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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