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MAX D. SCHNEIDER

TECHNICAL SKILLS

- Proficiency in R and work experience with LaTeX, Python, subversion, bash scripting, STATA, SPSS, C++, ArcGIS, and Microsoft Office
- Extensive usage of Unix OS, including command-line software compilation from source code and debugging Makefiles
- Hands-on experience with principal component analysis, linear and kernel-based classification techniques, point process residuals, advanced regression methods as well as experimental design and survey management
- Facility in visualization and quantitative analysis of complex networks, agent-based models and other topics in complexity science

EXPERIENCE

Humboldt University of Berlin, Geography Institute Berlin, Germany April 2015 –
Research Assistant with Dr. Tobias Kümmerle

- Model drivers of European agricultural abandonment using boosting method in R and GIS, examining spatially-varying and -constant terms to explicitly consider spatial variation in relationships between regressor and response variables
- Provide statistical and programming consulting to group of biogeographers and land use scientists

University of Potsdam, Mathematics Institute Potsdam, Germany April 2014 – October 2014
Research Assistant with Dr. Sylvie Roelly

- Edited and improved language of textbooks on topics in applied stochastics such as stochastic differential equations, ergodic rates and continuous-time Markov processes

Karlsruhe Institute of Technology, Geophysical Institute Karlsruhe, Germany August 2013 – December 2013
Research Assistant with Dr. Bijan Khazai

- Investigated data on sectoral economic damages resulting from past Japanese earthquakes, with exploratory analysis of socioeconomic proxies determining their trends
- Provided statistical consulting to group of earthquake engineers and economists

German Research Centre for Geosciences (GFZ) Potsdam, Germany April 2012 – December 2013
Guest Scientist with Dr. Danijel Schorlemmer

- Evaluated suites of models, forecasting earthquake rates for California region for medium- and long-term periods, as part of Collaboratory for Study of Earthquake Predictability experiment
- Applied statistical techniques on likelihood and residual scores drawn from model forecasts, visualizing their results to identify top-performing models
- Prepared efficient code using R to process and analyze massive multidimensional forecasts (hundreds of millions of rows of data)

Waypoint Group San Francisco, CA November 2011 – March 2012
Data Analyst

- Wrote scripts in R to perform automated and reproducible data cleaning, analysis and visualization on customer experience survey data to identify trends across different customer traits
- Identified advanced analytic and visualization methods to uncover actionable results from survey data
- Used data-driven approach to identify most significant attributes of customer experience to drive clients' financial growth

Benetech Human Rights Program Palo Alto, CA August 2010 – December 2011
Statistics Intern

- Performed algorithmic and programmatic data sanity-checking, cleaning, and processing for latest wave of documents sampled from Guatemalan National Police Archives, to be used in statistical analyses for high-level trials regarding past human rights violations
- Participated in field visit to National Police Archives in Guatemala City to process and analyze data for statistical evidence being used in trial of former Guatemalan Police Chief for past human rights violations

UCL Department of Statistical Science London, United Kingdom August 2009 – December 2009
Research Assistant with Dr. Serge Guillas

- Initiated and ran independent research project to test the effectiveness of such policies as the Montreal Protocol in stimulating recovery and health in the ozone layer using principal component analysis and other statistical techniques
- Learned to port MOZART, a highly technical climate model, to the platform of a UCL supercomputer named Legion
- Completed 50 page dissertation: *"Trends in the variability of stratospheric ozone as given by three chemical transport models"*

UCLA Department of Atmospheric and Oceanic Sciences Los Angeles, CA March 2008 – January 2011
Research Assistant with Dr. Jochen Stutz

- Conducted independent research project to determine whether the MAX-DOAS instrument can be used to measure the concentration of bromine monoxide, ozone, and other species in the stratosphere (to be cross-validated with satellite studies)
- Participated in group field campaigns at Summit Station, Greenland (summer 2008) and Houston, Texas (spring 2009)
- Assisted in building trace gas measurement instruments and support equipment

EDUCATION, ACADEMIC WORK AND AWARDS

University of Potsdam — Potsdam, Germany — October 2012 – Present
Master's of Science in Applied Mathematics (with coursework at Humboldt, Free and Technical Universities (Berlin))

University of California, Los Angeles — Los Angeles, CA — September 2007 – June 2011
Bachelor's of Science in Statistics and Human Complex Systems (Cum Laude honor)
Senior Thesis: "*The Calm—and not so Calm– Before the Storm: Using Imputation and LASSO Regression to Predict Vulnerability to Natural Disaster,"* with Professor Mark Hansen

University College London — London, United Kingdom — August 2009 – December 2009
Department of Statistical Science

Woodside High School — Woodside, CA — September 2003 – June 2007
High School Diploma (Valedictorian honor)

Academic Publications, Seminars and Posters

Schneider, M. "Spatial Variation of Drivers of Agricultural Abandonment with Spatially Boosted Models; Or: Why You Should Boost Your Models in Your Research." Land Systems Science Cluster Colloquium. Berlin, Germany. 20 April 2015.

Schneider, M. "Tidal Signatures in Geomagnetic Observatory Data: Summer Term Report 2014." German Research Centre for Geosciences, Section 2.3 (Earth's Magnetic Field). Potsdam, Germany. 15 October 2014.

Schneider, M., Clements, R., Rhoades, D. and Schorlemmer, D. Likelihood- and Residuals-Based Evaluation of Medium-Term Earthquake Forecast Models for California, Geophys. Journal International, 198, 1307-1318, 2014.

Schneider, M., Clements, R., and Schorlemmer, D. "Evaluation of Three-Months Models Forecasting California Seismicity." University of Potsdam Geosciences PhD Seminar Day. 28 November 2012.

Schneider, M., Clements, R., and Schorlemmer, D. "Evaluation of Three-Months Models Forecasting California Seismicity." Data Analysis and Modeling in Earth Sciences. Potsdam, Germany. 9 October 2012.

Schneider, M. "Which Countries Are Most Vulnerable To Natural Disaster? A Fuzzy Cognitive Mapping Approach." European Conference on Complex Systems. Brussels, Belgium. 2-3 September 2012.

Schneider, M. "Which Countries Are Most Vulnerable to Disaster? Approaches Using Complex Theory and Statistical Methods." Potsdam Institute for Climate Impact Research. Potsdam, Germany. 29 May 2012.

Schneider, M. "Benetech: Technology Serving Humanity", Fisherman's Wharf Rotary Club Meeting. San Francisco, CA. 8 December 2011.

Stutz, J., Thomas, J. L., Hurlock, S. C., **Schneider, M.**, von Glasow, R., Piot, M., Gorham, K., Burkhart, J. F., Ziemba, L., Dibb, J. E., and Lefer, B. L.: Longpath DOAS observations of surface BrO at Summit, Greenland, Atmos. Chem. Phys. Discussions, 11, 9899-9910, 2011.

Schneider, M., Hurlock, S. and Stutz, J. "Analyzing Stratospheric BrO Measurements from Summit Station, Greenland in 2007-2008." University of California, Los Angeles Science Poster Day. Los Angeles, CA. April 2010.

Hurlock, S. C.; Stutz, J.; Thomas, J.; **Schneider, M**. MAX-DOAS Measurements of Reactive Halogens at Greenland Summit in 2007 and 2008. American Geophysical Union, Fall Meeting 2008, abstract #A51C-0111

Stutz, J.; Thomas, J.; **Schneider, M.**; Hurlock, S. C.; von Glasow, R. LP-DOAS Observations of Halogen Oxides at Summit, Greenland. American Geophysical Union, Fall Meeting 2008, abstract abstract #A51C-0106

Conferences Attended

Global Earthquake Model (GEM) Summer Reveal (Pavia, Italy, **Jun. 2013**), Data Analysis and Modeling in Earth Sciences (Potsdam, Germany, **Oct. 2012)**, Berlin Conference on the Human Dimensions of Global Environmental Change **(Oct. 2012),** European Conference on Complex Systems (Brussels, Belgium, **Sept. 2012),** Silicon Valley Human Rights Conference (San Francisco, CA, **Oct. 2011**), Joint Statistical Meeting (Miami Beach, FL, **Aug. 2011**), SAMSI Undergraduate Workshop (North Carolina State University, **May 2011**), Human Rights and Technology Conference (UC Berkeley, **Apr. 2011**), Northwestern University Conference on Human Rights (**Jan. 2011**), Explorations in Statistics Research (National Center for Atmospheric Research, **Jun. 2010**), UCLA Science Poster Day (**May 2010**), Informal Symposium on Kinetics and Photochemical Processes in the Atmosphere (La Jolla, CA, **Feb. 2010**; Riverside, CA, **Feb. 2009**), American Geophysical Union Fall Meeting **(**San Francisco, CA, **Dec. 2008**)

Awards

J.W. Saxe Memorial Prize for Public Service, UCLA Statistics 2011 Commencement Speaker, UCLA Dean's Honors List (four terms), UCLA Alumni Award State Finalist, NFIB Young Entrepreneur Award, Discover Card Tribute Award State Winner, Bank of America Achievement Award, Ronald McDonald House Charities Scholarship, Reverend John Wesley Rice, Jr. Memorial Scholarship, Hazel Reed Baumeister Scholarship, Wells Fargo Bank Community Service Scholar Scholarship, Outstanding Student of America

ADDITIONAL INFORMATION

- **Professional membership:** American Statistical Association, Deutsche Statistische Gesellschaft (German Statistical Society**)**
- **Journalistic experience:** Correspondent with the UCLA *Daily Bruin*, the *Redwood Almanac*, the *Woodside World*
- **Leadership experience:** UCLA Statistics Club, Officer; Woodside High School Octagon Club (community service club), President, Treasurer; the *Woodside World*, Co-Editor-in-Chief, Section Editor; Junior Optimist Octagon International Pacific Central District, Secretary-Treasurer
- **Other UCLA extracurricular activities:** Statistics Club Tutoring Center, Mighty Mic Organization (human rights advocacy organization); UCLA Alumni Scholar's Club (volunteer society); Shakespeare@UCLA and HOOLIGAN theatre companies; taiko and Brazilian drumming
- **Multilingual:** Fluent in Russian, intermediate in Spanish and German