Laxman Karki

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EDUCATIONAL BACKGROUND

Doctor of Philosophy in Computational Science and Statistics   **August 2017**
South Dakota State University, Brookings, SD
Dissertation title: "Spatial and Spatiotemporal Modeling of Epidemiological Data"
Major Advisor: Dr. Gary Hatfield
Master of Science in Statistics   **May 2013**
South Dakota State University**,** Brookings, SD
Master of Science in Forest Resources   **December 2007**
Oklahoma State University, Stillwater, OK
Master of Science in Biology/Botany   **November 2002**
Tribhuvan University, Kathmandu, Nepal
Bachelor of Science in Biology   **November 1998**
Tribhuvan University, Kathmandu, Nepal

PROFESSIONAL EXPERIENCE

Graduate Teaching Assistant   South Dakota State University, Brookings, SD
January 2011 – May 2017
- STAT 281 Introductory Statistics (Spring 2012- Spring 2017)
- STAT 281 Course Redesign (Spring 2015)
- MATH 102 College Algebra (Spring 2011, Fall 2011, Fall 2016, Spring 2017)
- MATH 095 Pre-College Algebra (Spring 2011, Fall 2011, Spring 2012, Fall 2012, Spring 2016)
- MATH 115 Pre-Calculus (Spring 2014)
- MATH 123 Calculus I Proficiency exams (Fall 2015)

Responsibilities in STAT 281 included teaching recitation sections, conducting review sessions for tests, grading exams and class projects, holding office hours, helping students taking online classes by answering their homework related questions on desire2learn (D2L) discussion board posts. Duties in STAT 281 course redesign included survey available books for introductory statistics in market, recommend the best textbook for the course, prepared labs, and grading rubric, designed two class projects with grading rubric. The duties in MATH 095, MATH 102 and MATH 123 included helping students in solving homework assignments during recitation and at Math Help Center, grading quizzes and exams, proctoring exams.

MIS Analytics Intern   Premier Bank Card, Sioux Falls, SD
May 2015- August 2015

  Responsibilities: Wrote SQL code for data extraction from database, prepared reports, tables, charts of credit card data for management, performed statistical analysis and data visualization through SAS, SAS Enterprise miner and Excel, fitted and tested decision tree model to predict the risk variables for credit card loan default.

Graduate Assistant Mentor   South Dakota State University, Brookings, SD
June 2014 - July 2014

  Responsibilities: Taught R programming for REU students, mentored the progress of two Research Experiences for Undergraduates (REU) students: (1) **Jason Zellmer** from University of Wisconsin, Milwaukee, (2) **Nicholas Brown** from South Dakota State University on their progress on assigned statistics projects, helped on statistical analysis by using SAS and R, and making poster presentation.

Graduate Research Assistant   South Dakota State University, Brookings, SD
May 2012- August 2012

  Responsibilities: Provided consulting service to principal investigator from plant science department on determining the effects of treatments (chilling temperature levels) on bud break of grapevine, performed data cleaning, statistical modelling and data visualization by using R and SAS software, provided statistical and technical guidance as needed, presented the findings at seminars.

 Graduate Research Assistant   Oklahoma State University, Stillwater, OK
 August 2005- July 2007

  Responsibilities: Independently designed research project on tree fall gap ecology, did field data collection, data entry, statistical analysis and data visualization by using SAS, and presented the findings in a departmental seminar.

SKILLS

- **Programming Languages:** SAS, R and Bioconductor, Minitab, JMP, STATA, Python, SQL
- **Operating Systems:** Windows, Macintosh
- **PC Tools:** Extensive experience in using MS Word, MS Excel, MS PowerPoint
- **Languages:** English, Nepali, Hindi

MEMBERSHIPS
- Member, American Statistical Association
- Member, Nepalese Student Association (NeSA) , South Dakota State University
- Member, Pi Mu Epsilon

RESEARCH PUBLICATIONS

- **Laxman Karki**, and Stephen W. Hallgren (2015). "Tree-Fall Gap and Regeneration in Old-Growth Cross Timbers Forest". Natural Areas Journal 35(4) 533:541. doi: http://dx.doi.org/10.3375/043.035.0405
- **Laxman Karki,** and Gary D. Hatfield. "Spatial Analysis of Diabetes Prevalence in the Midwestern United States Using Mixed Geographically Weighted Regression Models. (Under preparation)

RESEARCH PRESENTATIONS
- Jason Zellmer, Gemechis Djira, Cedric Neumann, **Laxman Karki**. "Determining Sufficiency for Comparison in Friction Ridge Impression Examination Process". South Dakota Summer Research Symposium. July 25, 2014.
- Nicholas Brown, Gemechis Djira, **Laxman Karki**. "Base Runs Projection". July South Dakota Summer Research Symposium. July 25, 2014.
- **Laxman Karki**. Longitudinal Analysis of Data on Weight Gain in Rats Exposed to Thiouracil and Thyroxin, North Dakota Undergraduate Mathematics conference (NDUMC). Minot State University, Minot, ND. September 21, 2013.
- **Laxman Karki**, Kathy Mathiason, Gemechis Djira, Chistopher P. Saunders, Anne Fennell. "Isotonic Sequential Regression modeling on budbreak of grapevines". First annual SDSU symposium on Biological Research Computing, South Dakota State University, Brookings, SD. March 8, 2013.
- **Laxman Karki**. "Effect of chilling treatments on budbreak of grapevines". Computational Science and Statistics Seminar, South Dakota State University, Brookings, SD. November 5, 2012.

FELLOWSHIP / GRANT

- Afaneseiv Graduate Distinguished Fellowship from Department of Forestry Oklahoma State University, Stillwater, USA for the academic year 2005-2006 (US$ 2200).
- Travel grant from Department of Mathematics and Statistics to attend North Dakota Undergraduate Mathematics conference (NDUMC), Minot State University, Minot, North Dakota (US$ 250) September 2013.