Tekendra Bhatt

Contact Information

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Professional Objective

I am seeking an Assistant Professor position that blends research and teaching. I aim to continue research on stochastic processes (especially Hawkes models) and to help students succeed with clear explanations, hands-on practice, and steady support.

Education

University of North Texas, Denton, TX   *Ph.D. in Mathematics (expected Spring 2026)*
Dissertation: New class of a Kernel of the Hawkes Process
Advisor: Dr. Kai-Sheng Song

Kumaun University, Nainital, India   *M.A. in Economics (2012)*

Tribhuvan University, Kathmandu, Nepal

- *B.Ed. in Mathematics* (2006)
- *M.A. in Mathematics* (2004)
- *B.A. in Mathematics & Economics* (2002)

Teaching Experience

- **Teaching Assistant and Instructor of Record, University of North Texas**
  2018 Fall - Present

  - Developed and taught Business Calculus and Pre-Calculus courses, creating engaging learning materials.
  - Conducted recitation sessions, graded assignments, and provided individual academic support.
  - Used innovative technology and e-learning tools to enhance student engagement and outcomes.
  - Record of courses taught and student evaluations available at *UNT Faculty Profile*.

- **Assistant Professor, Far-Western University, Nepal**
  2015 - 2018
  - Taught graduate and Undergraduate level courses- Calculus, Differential Equations, Business Mathematics, Real Analysis, Topology, Linear Algebra, Basic Statistics.
  - Coordinated with the Examination Office to prepare and grade final exams.

- **Mathematics Faculty, Brixton College, Nepal**
  2010 - 2015
  - Taught Undergraduate-level Business Mathematics and Statistics in Bachelor of Business Administration (BBA Degree) affiliated with Pokhara University, Nepal.

- **Lecturer, Kachan Vidya Mandir Samudayik College, and Mathematics Teacher, Kanchan Vidya Mandir Secondary School, Nepal**
  2010 - 2013
  - Taught Undergraduate-level Business Statistics in Bachelor of Business Studies (BBS Degree) affiliated with Tribhuvan University, Nepal.
  - Taught Highschool Mathematics courses in Grades 11 and 12.

- **Mathematics Faculty, Bal Jagritee College, Nepal**
  2005 - 2010
  - Taught Undergraduate-level Real Analysis, Linear Algebra, Abstract Algebra, and Calculus in Bachelor in Mathematics Education (B. Ed. Math) affiliated with Tribhuvan University, Nepal.
  - Taught Undergraduate-level Business Statistics in Bachelor of Business Studies (BBS Degree) affiliated with Tribhuvan University, Nepal.

Research Interests

- **Hawkes & self–exciting point processes:** design and analysis of oscillatory (sinusoidal–exponential) kernels; stability, branching structure, and identifiability.

- **Statistical inference for point processes:** maximum likelihood, large–sample theory (consistency, asymptotic normality), and practical Fisher–information approximations for uncertainty.

- **Moment & limit theory:** closed–form moments and scalable recipes for higher orders; toward functional limit theorems and information lower bounds.

- **Multivariate/network Hawkes:** oscillatory interactions with phase lags; structure learning, model selection, and high–dimensional regimes.

- **Computation & software:** fast simulation via cluster/branching methods; exact likelihood in R/Rcpp; open–source R packages for inference and diagnostics.

- **Applications:** intraday finance, seismic aftershocks, and neural spike trains; comparing models by fit and short–horizon prediction.

- **Extensions:** nonparametric and marked Hawkes models for richer, data–driven interactions.

Awards, Scholarships, and Support

Awards and Honors

- Outstanding Teaching Fellow Award, Department of Mathematics, University of North Texas (2023)

- Academic Excellence Award, Department of Mathematics, University of North Texas (2022)

Nominations

- Department nominee, University-wide Outstanding Teaching Fellow Award, University of North Texas (2023)

Scholarships and Grants

- Texas Public Education Grant — International (TPEG-I), International Affairs, University of North Texas (2024)

- R. Mauldin Scholarship, Department of Mathematics, University of North Texas (2021–2022)

Research and Teaching Support

- Summer RA Award, College of Science, University of North Texas (2025)

- Summer RA Award, College of Science, University of North Texas (2024)

- Tuition Benefit Program (TBP), Graduate School, University of North Texas (2018–2025)

Trainings and Workshop

- Teacher Training Program on Business Mathematics by Higher Secondary Education Board, Nepal on Dec 25, 2008 - Dec 31, 2008.

- Teacher Training Program on Mathematics by Higher Secondary Education Board, Nepal on June 7, 2010 - June 13, 2010.

- Teaching Pedagogy in Management by Pokhara University, Nepal on Feb 04, 2014.

Skills

- **Programming & OS:** R, LaTeX.

- **Numerical work:** Simulation (Monte Carlo; point-process), MLE/optimization, reproducible workflows (R Markdown).

- **Teaching tech:** Canvas, WebAssign, Desmos/GeoGebra; document-camera/board workflows.

References

1. Dr. Kai-Sheng Song, Professor, Department of Mathematics, UNT.
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2. Dr. Joseph Iaia, Associate Professor, Department of Mathematics, UNT.
   joseph.iaia@unt.edu