**ELMIRA KALHOR**
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## PROFESSIONAL SUMMARY

Data-driven researcher with dual PhDs in **Economics** and **Engineering**, specializing in **data science, analytics, and policy evaluation**. Expertise in **statistical modeling, causal inference, geospatial analytics, and machine learning** for impact assessment and optimization across diverse domains, including **disaster resilience, energy policy, pricing analysis, and operations research**. Adept at **large-scale data processing, predictive modeling, automation, and decision-support frameworks** to drive actionable insights.

## PROFESSIONAL EXPERIENCE

**Postdoctoral Researcher – Data Science & Analytics**
*Princeton University, Princeton, NJ | Aug 2019– July 2022*

- Managed & analyzed **2TB+ spatiotemporal data**, leveraging **distributed computing** for large-scale processing.
- Developed **predictive models & clustering algorithms** to measure disaster-driven displacement patterns.
- Applied **causal inference & machine learning** to assess socioeconomic disparities in disaster response.
- Built **automated ETL pipelines & NLP models** for structured data standardization.
- Conducted **statistical analysis** for wildfire risk assessment and mobility disruption modeling.

**Doctoral Researcher – Economics**
*University of New Mexico, Albuquerque, NM | Aug 2016– July 2019*

- Developed **dynamic models for policy simulation & resource optimization** in energy and environmental sectors.
- Applied **time-series forecasting & causal analysis** to evaluate regulatory impacts in oil & gas markets.
- Integrated **multisource economic & environmental data** to analyze land-use & transportation dynamics.

**Doctoral Researcher – Engineering**
*University of New Mexico, Albuquerque, NM | Aug 2012–July 2017*

- Designed **optimization models & Monte Carlo simulations** for wildfire risk mitigation investment.
- Built **hedonic pricing models** using **spatial econometrics** to assess wildfire risk impacts on housing markets.
- Conducted **GIS-based hazard mapping** and property risk analysis to support policy decision-making.

## TECHNICAL SKILLS

- **Programming & Data Tools:** Python, SQL, R, Tableau, ArcGIS
- **Analytics & Experimentation:** A/B Testing, Quasi-Experimental Design, Bayesian Analysis
- **Machine Learning & Optimization:** Predictive Modeling, Clustering, Time-Series Forecasting
- **Data Analysis & Strategy:** Business Insights, Statistical Inference, Data Storytelling

## EDUCATION

PhD, **Economics** – University of New Mexico | 2019
PhD, **Civil Engineering** – University of New Mexico | 2017