# Bashir Rastegar Panah

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**Experiences**

- **Fiddler AI**, Palo Alto, CA ..... Nov 2021 - present
  Data Scientist II
  *Designed a data drift detection algorithm for large language models and NLP embeddings.*
  *Designed model auditing tools for generative AI models such as ChatGPT.*
  *Designed an outlier detection algorithm for unstructured data.*
  *Developed a report generator package for the Fiddler platform.*
- **Boston University**, Boston, MA ..... Sept 2014 - Aug 2021
  Graduate Research Assistant
  *Developed new tools for enhancing fairness, privacy, and explainability of ML algorithms.*
  *Developed data mining and graph mining techniques for analyzing single-cell genomics data.*
- **Max Planck Institute SWS**, Saarbrücken, Germany ..... Feb 2019 - May 2019
  Internship
  *Designed a multi-armed bandit framework for auditing data minimization in ML models.*
  *Worked on operationalizing data protection regulations for learning systems.*
- **Fraunhofer IAIS**, Sankt Augustin, Germany ..... Sept 2012 - May 2014
  Machine Learning Engineer
  *Implemented supervised and unsupervised learning algorithms for creating insight about and predicting user preferences in online recipe platforms.*
- **University of Bonn**, Germany ..... Sept 2011 - Jan 2012
  Student Research Assistant at Signal Processing Department
  *Implemented matrix-factorization methods for detecting auditory objects in audio signals.*

**Education**

- **Boston University,** Ph.D. Computer Science ..... Boston, MA, 2021
- **University of Bonn,** M.Sc. Computer Science ..... Bonn, Germany, 2013
- **University of Isfahan,** B.Sc. Software Engineering ..... Isfahan, Iran, 2010

**Skills**

- Over 10 years of research and development experience in adopting data-driven solutions.
- Developing ML deployment solutions on distributed and containerized architectures.
- Fluent in Python and its various data science, natural language processing, visualization, scientific computing, machine learning, and deep learning libraries.
- Strong theoretical background in machine learning, signal processing, network science, and optimization.
- Worked in highly collaborative environments in both academia and industry.

**Patent**

"System and Method for Data Drift Detection to Improve Data Integrity for Data within a Database" (filed on Sept 2022)

**Publications**

**Responsible AI**

- "Auditing Black-box Prediction Models for Data Minimization Compliance" Bashir Rastegarpanah, Krishna P. Gummadi, Mark Crovella. **NeurIPS 2021**
- "Fair Inputs and Fair Outputs: The Incompatibility of Fairness in Privacy and Accuracy" Bashir Rastegarpanah, Mark Crovella, Krishna P. Gummadi. **FairUMAP 2020**
- "Fighting Fire with Fire: Using Antidote Data to Improve Polarization and Fairness of Recommender Systems" Bashir Rastegarpanah, Krishna P. Gummadi, Mark Crovella. **WSDM 2019**
- "Exploring Explanations for Matrix Factorization Recommender Systems" Bashir Rastegarpanah, Mark Crovella, Krishna P. Gummadi. **FATREC 2017**

**Network Science**

- "Single-cell transcriptional networks in differentiating preadipocytes suggest drivers associated with tissue heterogeneity" Ramirez, Alfred K., Simon N. Dankel, Bashir Rastegarpanah, Weikang Cai, Ruidan Xue, Mark Crovella, Yu-Hua Tseng, C. Ronald Kahn, and Simon Kasif. ***Nature Communications (2020)*** (Press Coverage: *Medical Xpress*)
- "Collective Attention to Social Media Evolves According to Diffusion Models" Christian Bauckhage, Kristian Kersting, Bashir Rastegarpanah. ***WWW 2014***
- "The Weibull as a Model of Shortest Path Distributions in Random Networks" Christian Bauckhage, Kristian Kersting, Bashir Rastegarpanah. ***MLG 2013***