

Josua Krause

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- Education** **PhD in Computer Science**, NYU Tandon School of Engineering
dissertation: “Using Visual Analytics to Explain Black-box Machine Learning”
advisor: Prof. Dr. Enrico Bertini
New York, USA – 2013 - 2018
- MSc in Computer Science**, University of Konstanz
BSc in Information Engineering, University of Konstanz
- Employment** **Accern**, NLP startup in the FinTech space (\$20M Series B early 2022)
role: Vice President of Data Science
tasks: lead of research, development, and deployment of AI models; focus on deep representation learning, natural language processing, and adaptive learning at scale
reports: 6 Data Scientists; 2 Data Engineers
scale: 500k new documents per day; repository of 4B historical documents
select technology: PyTorch, Hugging Face BERT / DistilBERT, NVIDIA Triton, scikit-learn, pandas, polars, Project Jupyter, AWS, GCP, DigitalOcean, Kubernetes, Prometheus, Grafana, Redis, PostgreSQL
tenure: started during Pre-Series A as Senior Data Scientist
New York, USA – 2018 - current
- NYU Tandon School of Engineering**
role: Adjunct Professor
teaching: Foundations of Data Science
New York, USA – 2021
- Pacific Northwest National Laboratory** National Security Internship Program
IBM T. J. Watson Research Center Research Summer Intern
NYU Tandon School of Engineering Research and Teaching Assistant
- Patents** **Josua Krause, Kenney Ng, Adam Perer**: “Identifying and ranking risk factors using trained predictive models”,
US Patent 11,355,245 and 11,355,246 – submitted 2017, accepted 2022
- Select Publications** **Josua Krause, Adam Perer, Enrico Bertini**: “A User Study on the Effect of Aggregating Explanations for Interpreting Machine Learning Models”,
KDD Workshop on Interactive Data Exploration and Analytics (IDEA) 2018
- Josua Krause, Adam Perer, and Kenney Ng**: “Interacting with Predictions: Visual Inspection of Black-box Machine Learning Models”,
ACM Conference on Human Factors in Computing Systems (CHI) 2016
- Josua Krause, Adam Perer, Enrico Bertini**: “Using Visual Analytics to Interpret Predictive Machine Learning Models”,
ICML Workshop on Human Interpretability in Machine Learning (WHI) 2016
- Josua Krause, Aritra Dasgupta, Jordan Swartz, Yindalon Aphinyanaphongs, Enrico Bertini**: “A Workflow for Visual Diagnostics of Binary Classifiers using Instance-Level Explanations”,
IEEE Transactions on Visualization and Computer Graphics (TVCG – VAST) 2017
- <https://scholar.google.com/citations?user=hFjNgPEAAAAJ> for full list of publications