

Aron Szanto

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/ Professional Experience

Kensho Technologies · New York, NY · 2018—present

Director, Natural Language Processing Division

- Establish and scale world-class organization from 3 to 25 across AI research, software engineering, ML infrastructure, and product/commercial teams
- Lead creation of \$115MM+ portfolio of ML products deployed to hundreds of thousands of expert users
- Direct ML, software, and product strategy for core AI platform processing 30B+ documents
- Deliver key presentations to investors and board of directors amidst \$44B acquisition

Machine Learning Engineer

- Led technical effort as principal ML research scientist, designing novel techniques in NLU, weakly supervised text classification, and knowledge base-augmented named entity recognition and linking
- Delivered models and software across all aspects of ML development, from research to production at scale
- Launched and directed research efforts for multiple patented or published NLP products

Zerobase Foundation · New York, NY · 2020—2021

CEO & Founder

- Founded and led public health technology nonprofit providing a free, privacy-preserving, universally accessible digital contact tracing platform to help contain Covid-19 in low-resource environments
- Managed and scaled global staff of 150+ across engineering, ML, product, communications/PR, legal, government affairs, recruiting, and last-mile operations functions
- Liaised with senior executive governmental and private sector partners to deploy technology across several continents, protecting tens of thousands of individuals from potential Covid-19 infection
- Established partnerships with top technology research organizations like Harvard, Max Planck, and Amazon to develop a breakthrough machine learning algorithm that powers the Zerobase platform

Harvard University · Cambridge, MA · 2018—2020

Associated Researcher, Department of Computer Science

- Directed research as visiting ML scientist on teams investigating misinformation propagation, fake news, NLP, and Visual Question Answering. Work appears in top ML publications, such as WWW and KDD

MarketFactory · New York, NY · 2015—2018

Product Engineering Manager

- Led R&D team for market data and economic analysis products at high-growth fintech startup
- Architected 1.2PB database migration, resulting in a 100x speedup, >95% compression, and zero downtime

/ Education

Harvard University · Cambridge, MA

Applied Mathematics, Computer Science and Economics

Highest Honors, Phi Beta Kappa

- Completed courses for B.A. and M.S. degrees concurrently
- Fay Prize for Most Outstanding Work in Any Field, Hoopes Prize for Outstanding Thesis
- Graduate research in ML for misinformation detection, NLP, big data systems, and privacy and security

/ Technologies

- **ML:** Pytorch, TensorFlow/Keras, Transformers, Scikit-Learn, LightGBM | Pandas, NumPy | NetworkX
- **Software:** Python (expert), C++/C, Java | Docker, Kubernetes, AWS | SQL, Elasticsearch | Kafka, Airflow

/ Selected Research and Patents

- Rosenfeld, N.*, Szanto, A.*, & Parkes, D. [A Kernel of Truth: Determining Rumor Veracity on Twitter by Diffusion Pattern Alone](#). *Proceedings of The Web Conference (WWW)*.
- Lorch, L., Kremer, H., Trouleau, W., Tsirtsis, S., Szanto, A., Schölkopf, B., & Gomez-Rodriguez, M. [A Spatiotemporal Epidemic Model to Quantify the Effects of Contact Tracing, Testing, and Containment](#). *Publication Forthcoming*.
- Szanto, A. [Concept Modeling System](#). United States Patent TBD (Publication Forthcoming). United States Patent and Trademark Office.
- Szanto, A., et al. [Named Entity Recognition and Disambiguation Engine](#). United States Patent 16512652. United States Patent and Trademark Office.
- Szanto, Aron, et al. [Dynamically Updated Text Classifier](#). United States Patent 20200286002. United States Patent and Trademark Office.
- Grand, G.*, Szanto, A.*, Kim, Y., & Rush, A.. [On the Flip Side: Identifying Counterexamples in Visual Question Answering](#). *KDD*.
- Szanto, A., Tamm, T., & Pagnoni, A. [Taint Tracking for WebAssembly](#).
- Szanto, A., & Mehta, N. [A Host of Troubles: Re-Identifying Airbnb Hosts Using Public Data](#). *Journal of Technology Science*.
- Szanto, A. [The Skiplist-Based LSM Tree: A Novel High-Performance NoSQL Database](#).
- Szanto, A. & Gehrmann, S. [Deep Learning Models for Large-Scale Collaboration](#).
- Szanto, A. & Boucher, N. [ProtoN: A Fast Binary Protocol for JSON-like Data Transfer](#).

/ Publications and Press

- Kensho NERD Product Launch [Press Release](#). PRWeb.
- Szanto, A. & Harris, D. [Zerobase creates private, secure, and automated contact tracing using Amazon Neptune](#). Amazon Web Services Blog.
- Radio [Interview](#) with Les Sinclair on WINA regarding Zerobase contact tracing platform.
- Max Planck Institute. [International team of scientists develops machine learning model that could help inform COVID-19 containment measures](#).
- The New Stack. [Why Covid-19 Contact Tracing Requires a Distributed Database](#).
- [How These Software Engineers Make Clean Code a Priority](#). BuiltIn NYC.
- Szanto, A., Mehta, N., & Houlihan, E. [How to Rob an Airbnb](#). *Syndicated on HackerNoon, Reached #1 on Y Combinator and Reddit*.

/ Prizes and Awards

- Innovation and Excellence Award, S&P Global. *Recognizing superlative technological innovation*.
- Invited Speaker, The Web Conference. *Gave keynote lecture about ML research on fake news detection*
- Fay Prize, Harvard University. *The prize is given to the student who has produced the most outstanding imaginative work or piece of original research in any field*.
- Hoopes Prize, Harvard University. *The Thomas Temple Hoopes Prize is the most prestigious award an undergraduate may receive on the merits of their senior thesis*.
- Blumberg Prize for Creative Applications of Science, Harvard University.
- Highest Honors, Harvard University. *Recognizing top academic performance among peers*.
- Phi Beta Kappa, Harvard University.
- Special Distinction Award. National Forensics Association. *For excellence in individual debating*.