

Brian Eriksson, Ph.D.

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Summary

Technology leader directing projects and teams in the areas of artificial intelligence and machine learning. An author of over 30 peer-reviewed research publications and 25 pending patents.

Experience

Adobe, November 2017 – Current

Sensei and Search, San Jose, CA

Senior Engineering Manager, AI Experiences, January 2020 - Current

- Leading a full-stack engineering team creating new experiences and prototypes for next-generation search and recommendation of creative assets
- Directed a team that launched contextual and proactive recommendations of creative asset manipulations on the Adobe Creative Cloud app (iOS and Android)

Engineering Manager, Applied Research and AI, November 2017 - December 2019

- Engineering manager developing and exploring intelligent assistants inside Adobe products.
- Developed a variety of assistant proof-of-concepts across the Adobe product ecosystem, including customer service chat bots and in-app contextual recommendations. Many of these experiences were eventually brought to customers by production teams.
- Built a new team of ML/AI scientists and full-stack engineers from the ground-up.

Technicolor, July 2012 – November 2017

Bay Area Research Lab, Los Altos, CA

Technical Area Lead, Artificial Intelligence, July 2016 – November 2017

- Managed a team of researchers and data scientists in the area of artificial intelligence (AI)
- Directed innovative AI research published at CVPR, ICML, SIGGRAPH, SIGKDD, etc.
- Deployed technology transfer solutions for special effects workforce optimization and DVD/Blu-Ray production
- Mentored and developed new project managers

Technical Area Lead, User Analytics, November 2014 – June 2016

- Technical lead for an organization of over 30 scientists and engineers across the United States and France in the area of predictive data analytics and machine learning.
- Directed innovative projects and technology strategy for: IoT home sensors, connected aging, networking analytics, wearables, mobile gaming analytics
- Introduced and implemented agile development environment and software best practices
- Recruited and rebuilt machine learning team in Los Altos, CA
- Recognized as Group High Potential 2015

Researcher, July 2012 – October 2014

- Published and presented advances in top-tier machine learning venues including ICML, SIGKDD, Ubicomp, ECML, etc.. Specific contributions include creation of novel learning-to-rank algorithms, advances in high-dimensional statistics, and analysis of wearable sensor data.
- Co-founder, Empath Analytics, internal incubator project. Performed and led customer and product development for a wearable-focused startup. Responsibilities included:
 - Raising funds from external VCs
 - Deriving actionable insights from unstructured wearable sensor data
 - Developing novel algorithms and functioning prototypes
 - Presenting to potential customers and developing partnerships
 - Defining new strategic directions in the emerging area of wearables
- Recognized as Group High Potential 2014

Boston University, September 2010 – June 2012

Department of Computer Science, Boston, MA

Postdoctoral Research Fellow

- Published research in the areas of machine learning and networks. Specific contributions include insights into Internet location targeting, development of novel clustering algorithms, and advances in matrix completion (*i.e.*, the Netflix problem).
- Presented and fostered relationship with government funding sources
- Wrote grant applications with collaborators

University of Wisconsin – Madison, September 2004 – August 2010

Department of Electrical and Computer Engineering, Madison, WI

Research Assistant

- Published research in the areas of networking and image processing. Specific contributions include insights on Internet structure and the creation of algorithms robust to missing data.

Education

Ph.D. Electrical Engineering, August 2010

University of Wisconsin – Madison

Thesis Title Network Discovery Using Incomplete Measurements
Advisors Robert Nowak (Electrical and Computer Engineering) and
Paul Barford (Computer Sciences)

M.S. Electrical Engineering, May 2006

University of Wisconsin – Madison

B.S. Computer Engineering, May 2004

University of Wisconsin – Madison

Honors Graduated with Distinction

Selected Publications

- Wide Compression: Tensor Ring Nets. W. Wang, Y. Sun, B. Eriksson, W. Wang, V. Aggarwal. CVPR 2018
- From VFX Project Management to Predictive Forecasting. H. Ricklefs, S. Puschendorf, S. Bhamidipati, B. Eriksson, and A. Pushparaja. ACM SIGGRAPH 2017 (Talks Track)
- Just One More: Modeling Binge Watching Behavior. W. Trouleau, A. Ashkan, W. Ding, B. Eriksson. ACM SIGKDD Conference 2016
- Learning Latent Variable Gaussian Graphical Models. Z. Meng, B. Eriksson, A.O. Hero III. International Conference on Machine Learning (ICML) 2014
- Predicting Audience Responses to Movie Content from Electro-Dermal Activity Signals. F. Silveira, B. Eriksson, A. Sheth, and A. Sheppard. ACM UbiComp Conference 2013
- Learning to Top-K Search using Pairwise Comparisons. B. Eriksson. International Conference on Artificial Intelligence and Statistics (AISTats) 2013
- High Rank Matrix Completion. B. Eriksson, L. Balzano, and R. Nowak. International Conference on Artificial Intelligence and Statistics (AISTats) 2012.
- Network Discovery from Passive Measurements. B. Eriksson, P. Barford, and R. Nowak. ACM SIGCOMM Conference 2008.

Selected Patents

- Using Augmented Reality To Fill-In Content For User-Specific Censoring, Patent filed.
- A Methodology for Rewarding Binge Watching Behavior, Patent filed.
- Rethinking the Pause Button, Patent filed.
- Method For Reliable Storage Of Data Onto DNA Allowing Efficient Access To Data, Patent filed.
- Interactive Discovery for Cold-Start Recommendation, Patent filed.
- Adaptive Decomposition of Electro-Dermal Measurement Signals, Patent filed.
- Top-K Search Using Selected Pairwise Comparisons, Patent filed.
- Correlating Biometric Responses to Analyze Movie Audience Reactions, Patent filed.

Programming Languages

- Python (Sklearn, Keras, Tensorflow), Javascript (ReactJS, Redux), Scala (Apache Spark)

Activities and Honors

- Recognized as Technicolor Group High Potential 2014, 2015
- Co-organizer, Network Mapping and Measurements Conference (NMMC) 2011
- IC Postdoctoral Research Fellowship 2010
- Tau Beta Pi, Eta Kappa Nu honor society membership