Nikolay Pavlovich Laptev

CONTACT INFORMATION

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EDUCATION

Stanford University, Stanford, CA USA
- Postdoc, Electrical Engineering, December 2018.
- Research topic: Neural network interpretation.
- Advisor: Ram Rajagopal.

University of California Los Angeles, Los Angeles, CA USA
- Ph.D., Computer Science, Distributed Systems, December 2012.
- M.S., Computer science, Machine Learning, June 2008
- Advisor: Carlo Zaniolo, Awards: NSF Scholar, GSR Scholarship.

University of California Santa Barbara, Santa Barbara, CA USA
- M.A., Economics with Emphasis on business, June 2007.
- B.S., Computer Science, June 2006.
- Regents Scholarship and Dean's Honor List.

PROFESSIONAL EXPERIENCE

Facebook, Menlo Park, CA, USA
Engineering Lead **Oct 2017 - Present**

- Engineering Lead and founder of real-time machine learning.

Uber, San Francisco, CA, USA
Science Lead **Sep 2016 - Oct 2017**

- Tech lead for applied machine learning focusing on deep learning research and applications to time-series forecasting and anomaly detection.

Yahoo! Labs, Sunnyvale, CA, USA
Sr. Research Scientist **Jan 2013 - Sep 2016**

- Developed large scale models for ranking, recommendation, classification and anomaly detection used in production by millions of people.

HRL Labs, Internship, Malibu, CA, USA
Research Scientist **Jun 2012 - Sep 2012**

- Developed prediction models together with an approximation for these models that work over 'Big Data' on Hadoop.

Google, Internship, Irvine, CA, USA
Software Engineer **Jun 2011 - Sep 2011**

- Developed fault-tolerance and anomaly detection techniques for Google Real-Time Analytics.

Teradata, Internship, Los Angeles, CA, USA
Software Engineer **Jun 2010 - Sep 2010**

- Developed a compiler that compiles Teradata UDFs into Hadoop MapReduce jobs.

Citrix Systems, Internship, Santa Barbara, CA, USA
Software Engineer **2008 and 2009 Summers**

- Developed a distributed load-testing framework to test company's backend infrastructure for GoToMyPC products.

Commission Junction, Internship, Santa Barbara, CA, USA
Software Engineer **2005 and 2006 Summers**

- Developed a framework for automated Customer Acceptance Tests.

Publications

Nikolay Laptev, Jason Yosinksi, Li Erran Li, Slawek Smyl, Time-series Extreme Event Forecasting with Neural Networks at Uber, ICML 2017

J Balasubramanian, A Soni, Y Mehdad, **N Laptev**, Online Article Ranking as a Constrained, Dynamic, Multi-Objective Optimization Problem, FLAIRS 2017

Xiaokui Shu, **Nikolay Laptev**, Danfeng Yao, DECT: Distributed Evolving Context Tree for Understanding User Behavior Pattern Evolution, EDBT 2016 (Full Paper)

Xiaokui Shu, **Nikolay Laptev**, Danfeng Yao, DECT: Distributed Evolving Context Tree for Understanding User Behavior Pattern Evolution, AAAI 2016 (DEMO)

Rob Hyndman, **Nikolay Laptev**, Earo Wang, Large-Scale Unusual Time Series Detection, ICDM 2015.

George D Montanez, Saeed Amizadeh, **Nikolay Laptev**, Inertial Hidden Markov Models: Modeling Change in Multivariate Time Series, AAAI 2015

Nikolay Laptev, Saeed Amizadeh, Ian Flint, Generic and Scalable Framework for Automated Time-series Anomaly Detection, KDD 2015

Ilaria Bordino, Nicolas Kourtellis, **Nikolay Laptev**, Youssef Billawala, Stock Trade Volume Prediction with Yahoo Finance User Browsing Behavior, ICDE 2014.

Nikolay Laptev, Kai Zeng, Carlo Zaniolo, Very Fast Estimation for Result and Accuracy of Big Data Analytics: the EARL System, ICDE 2013.

Nikolay Laptev, Tsai-Ching Lu, Carlo Zaniolo, BOOT-TS: A Scalable Bootstrap for Massive Time-Series Data, NIPS 2012.

300+ citations. See more on **Google Scholar**.

Selected Talks

- ISF 2017, Cairns, Australia on Time-series modeling with Neural Network at Uber.
- Stanford 2017, Palo Alto, on Time-series special events modeling with Neural Network at Uber.
- FLAIRS 2017, Online Article Ranking as a Constrained, Dynamic, Multi-Objective Optimization Problem
- EDBT 2016, Bordeaux, France on DECT: Distributed Evolving Context Tree for Understanding User Behavior Pattern Evolution (talk).
- AAAI 2016, Phoenix, Arizona on DECT: Distributed Evolving Context Tree for Understanding User Behavior Pattern Evolution (demo).
- Georgia Tech 2015 & #lspe meetup, on Generic and Scalable Framework for Automated Time-series Anomaly Detection.
- ICDM 2015, Atlantic City, US on Large-Scale Unusual Time Series Detection.
- KDD 2015, Sydney, Australia on Generic and Scalable Framework for Automated Time-series Anomaly Detection.
- ICDE 2013, Brisbane, Australia on Very Fast Estimation for Result and Accuracy of Big Data Analytics: the EARL System.
- NIPS 2012, Lake Tahoe, Nevada, USA on A Scalable Bootstrap for Massive Time-Series Data.
- VLDB 2012, Istanbul, Turkey on Early Accurate Results for Advanced Analytics on MapReduce.
- ICDE 2012, Washington DC, USA on Optimization of Massive Pattern Queries by Dynamic Configuration Morphing.

Other

Hobbies: Basketball league, open source (github: nlaptev), marathon runner.

Languages: English, Russian, Spanish.

Personality: A lot of enthusiasm and energy for solving difficult problems.

References

Mayur Deshpande, Google, Staff Software Engineer, nep@google.com

Youssef Billawala, Apple, Science Manager, ybillawala@gmail.com

Fran Bell, Uber, Sr. Manager, fran@uber.com

Carlo Zaniolo, UCLA, Professor, zaniolo@cs.ucla.edu