Yunlong Jiao

Machine Learning Scientist

Cambridge, UK
+44 7400 724281
jyunlong@amazon.com
github.com/YunlongJiao
linkedin.com/in/yunlong-jiao/

ABOUT ME

I am a machine learning scientist passionate about advancing innovative technologies through AI. I am particularly interested in representation learning and generative probabilistic modelling with large-scale complex data.

EDUCATION

2013 – 2017 **Doctor of Philosophy**
Centre for Computational Biology
Mines ParisTech, Paris, France

2012 – 2013 **Master of Science** (HIGHEST MENTION)
Department of Mathematics
University of Paris XI, Orsay, France

2008 – 2012 **Bachelor of Science** (FIRST CLASS HONOURS)
Department of Mathematics
University of Science & Technology of China

DISTINCTIONS

2013 – 2016 **Early Stage Researcher Fellowship**
in Machine Learning for Personalised Medicine
funded by the EU 7th Framework Programme

NOV 2013 **Runner-up** (team collaboration)
in DREAM 8 Toxicogenetics Challenge

AUG 2011 **Honorable Mention** (top 15 nationwide)
in S.-T. Yau College Student Mathematics Contest – Probability and Statistics Sector

PROFESSIONAL SKILLS

PROGRAMMING Python (MXNet, PyTorch), R, C++, Bash

BIG DATA Parallel Computing (CUDA, SGE), SQL

ML/STATISTICS Neural Text-to-Speech, Conversational AI, Deep Generative Models (Flows, VAEs), Kernel Methods (Gaussian Processes), Time Series, Massively Missing Data, Computational Biology

LANGUAGES Chinese (native), English (proficient), French (conversational), Spanish (learning)

SELECTED PUBLICATIONS

CONFERENCES **ICML** 2018 / 2016 / 2015

JOURNALS **IEEE TPAMI** 2018

PATENTS **US16/416844** (pending)

All selected publications are first-authored.

WORK EXPERIENCE

CURRENT, FROM NOV 2019

Machine Learning Scientist
Amazon, Cambridge, UK

- Machine learning research: **1)** Neural Text-to-Speech for conversational AI with Alexa. **2)** Delivery of universal neural vocoding technology to scale up production of TTS systems. **3)** Improving long-form speech synthesis with NLP.

NOV 2017 – OCT 2019

Postdoctoral Research Scientist
University of Oxford, Oxford, UK

- Machine learning research: **1)** Scalable multi-view learning with massively and structurally missing data. **2)** Collaborative filtering-based comorbidity inference for healthcare AI.
- Biostatistics research: **1)** Trajectory analysis for complex chronic disease progression. **2)** Longitudinal and multi-dimensional omic data integration.
- Supervision of Master thesis.

SEP 2013 – SEP 2017

Doctoral Researcher
Mines ParisTech & Institut Curie, Paris, France

- PhD advised by Prof. Jean-Philippe Vert.
- Machine learning research: **1)** Representation learning of (incomplete) ranking data with kernel methods and social choice theory. **2)** Graph signal processing and network-guided community detection.
- Bioinformatics research: **1)** Improved molecular prognosis of breast cancer. **2)** Robust biomarker discovery guided by biological networks.
- Thesis deliverables: **1)** Several high-impact publications in top machine learning conferences. **2)** A toolkit written in R/C++ for analysing ranking data with kernel methods.

MAR 2016 – JUN 2016

Visiting Scientist
Centro de Investigación Príncipe Felipe, Valencia, Spain

- Bioinformatics project: **1)** Interpretable feature selection for improved breast cancer survival prediction. **2)** Network analysis of signalling pathway activities.

APR 2015 – JUN 2015

Data Scientist Intern
Roche Diagnostics GmbH, Penzberg, Germany

- Data science project: **1)** Feature engineering from large-scale unstructured machinery performance data. **2)** Failure state prediction and preventive maintenance for automated analysers.
- US patent application filed in September 2019.