

Vasilis Vryniotis

Machine Learning Engineer & Data Scientist

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Summary

I'm a Machine Learning Engineer and a Data Scientist, with experience in providing technical and people leadership. I have worked for companies such as Deliveroo, Facebook, Expedia, King.com (Activision) & Microsoft and I have co-founded WebSEOAnalytics.com. My studies include an MSc in Machine Learning, an MSc in Statistics, an MBA and a BSc in Computer Science.

I am particularly interested in Machine Learning; both in its mathematical foundations and its applications. I specialize in building complex Machine Learning frameworks, developing novel ML models & techniques and releasing models to production. Moreover, I have experience working in the areas of Computer Vision, Natural Language Processing, Recommender Systems, Deep Learning, Learn-to-Rank, Real-Time Bidding and Open-Source software.

Work Experience

Deliveroo – Senior Staff ML engineer

01.2023 - Present

Deliveroo is a leading online food delivery company with presence in over 10 markets around the world. As part of my role, I provide technical leadership to the MLE teams within the Consumer org that develop the recommendation algorithms and learn-to-rank ML models of the company. Moreover my responsibilities include defining the technical roadmap of the ML/DS teams, defining the governance and processes within the Science org (Oncall process, Model readiness Assessment, Levels & Expectations, Hiring process etc) and working with Central Tooling teams to improve the ML platform of the company.

⇒ Key Technologies: Machine Learning, Deep Learning, Learn-to-Rank, Recommender Systems, Python, TensorFlow, SQL, Snowflake.

Facebook – Tech Lead, Staff ML engineer

09.2020 - 12.2022

Facebook is the biggest social network in the world and a leader in Machine Learning research. I am currently providing technical leadership for TorchVision, PyTorch's Computer Vision library. My responsibilities include defining the roadmap, supporting team members, driving key projects, working closely with research teams, implementing & training novel ML algorithms and managing the open-source project & community.

⇒ Key Technologies: Machine Learning, Deep Learning, Computer Vision, PyTorch, Python, CUDA, C++.

Expedia Group – Principal Data Scientist

11.2017 - 08.2020

As a Principal Data Scientist, I managed a team of 7 scientists who were responsible for the Content Understanding (Computer Vision & NLP) and Recommendations systems of the company. I played an active role on the formulation of the hiring process across the group and of the processes followed across the Data Science department. Additionally I led the R&D efforts of Expedia in the area of Deep Learning and I participated in the design and development of the Machine Learning systems required for training and deploying models in production.

⇒ Key Technologies: Machine Learning, Deep Learning, Computer Vision, NLP, Recommender Systems, Python, Keras, TensorFlow, PySpark, SQL, Databricks.

Expedia Group – Head of Data Science

11.2015 - 10.2017

Expedia, Inc. is one of the largest online travel companies in the world, with an extensive brand portfolio that includes some of the world's leading online travel brands (Hotels.com, Trivago etc). The main responsibilities of my role included leading the Data Science team of Hotels.com, conducting R&D for the development of novel algorithms, building Machine Learning models for the Search Engine and Recommender Systems of the company, developing Machine Learning pipelines and working on various data modeling projects.

⇒ Key Technologies: Machine Learning, Learn-to-Rank, Recommender Systems, Scala, Java, Apache Spark, SQL, Hive, Hadoop.

King (Activision) – Senior Data Scientist

09.2014 - 11.2015

King.com is part of Activision and the leading interactive entertainment company for the mobile world; some of the most well-known games of the company include the Candy Crush, Farm Heroes and Pet Rescue Saga. The key responsibilities of my role included developing Statistical & Machine Learning models for the Real-Time Bidding System (DSP/advertising) of the company, building Recommender Systems, developing Machine Learning pipelines in Python & Java, designing and running complex A/B-tests and writing Business Reports.

⇒ Key Technologies: Machine Learning, NLP, Python (Numpy, Scipy, Scikit-Learn, Pandas, Graphlab), Java, SQL, Hive, Hadoop, Mahout, QlikView.

Web SEO Analytics – Co-Founder & Technical Director

08.2009 - 08.2013

WebSEAnalytics.com, a corporate spin-off of Mozaik, was among of the most well-known SEO & Online Marketing tool providers with major clients from all over the world. As the co-Founder & Technical Director of the company, I was leading the team responsible for the Analytics Platform and I had hands-on involvement in its design and development. Moreover I was leading the efforts to improve the infrastructure of our backend systems in order to store and access efficiently our multi-TB Search Engine Index. Finally I was responsible for the development of the Machine Learning models which powered up our Analytics Platform and were used for Ranking Prediction, Text Extraction, Spam Detection, Sentiment Analysis and other Text Classification and Natural Language Processing applications.

⇒ Key Technologies: Machine Learning, NLP, Web Crawling, Java, MySQL, MongoDB, Apache Pig, Web Services.

Mozaik – Head of Software Development

09.2007 - 07.2013

Mozaik.com is a leading multi-awarded web development & online marketing agency which specializes in the Tourism & Online Retail industries and has offices in Athens, Paris and Nicosia. As head of the development department I was managing directly a team of 9 software engineers and a system administrator. I was involved in the design & development of internal tools, responsible for analyzing and managing large web projects and heavily involved in the coding of Web Services, CMS Systems, Portals, E-commerce Platforms, Payment Systems, Online Booking Systems and Online Marketing tools.

⇒ Key Technologies: PHP, CakePHP, MySQL, JSON, XML, HTML5, CSS3, Web Services.

Microsoft – Software Engineer (contract)

03.2007 - 06.2007

Microsoft Hellas and the Institute of Technology in Greece proposed the adoption of the Shibboleth Single Sign-On System in all the Greek Universities in order to build a secure network between organizations and protect the exchanged personal information. The system was initially designed for Microsoft's MSDNAA service and was later extended to support other 3rd party providers. In this contract project I was responsible for the analysis and development of the portal & web service and for the creation of the secure network in the 3

largest universities of Greece (University of Piraeus, National Technical University of Athens, Kapodistriako University of Athens).

⇒ Key Technologies: C#.NET, ASP.NET, Microsoft SQL Server, Shibboleth Server.

Freelancer – Web Developer & Software Engineer

05.2006 - 03.2007

As a freelance Web Developer and Software Engineer I worked for numerous Web Development and Software Development companies. My main responsibilities were the analysis, design and development of Online Services, Portals, Websites and Windows Desktop Applications.

⇒ Key Technologies: PHP, C#.NET, ASP.NET, Microsoft SQL Server, MySQL, PostgreSQL.

Education

Imperial College London – MSc in Machine Learning

09.2013 - 09.2014

Athens University of Economics and Business – MSc in Statistics

09.2011 - 09.2013

Athens University of Economics and Business – MBA

09.2009 - 09.2011

University of Piraeus – BSc in Computer Science

09.2005 - 09.2009

Technical Skills

Data Science	Machine Learning, Statistics, Computer Vision, Natural Language Processing, Recommender Systems, Deep Learning, Learn-to-Rank, Real-Time Bidding.
Data Tools	PyTorch, Spark, Keras, TensorFlow, Python Notebooks, Mahout, Databox, Graphlab.
Languages	Python, Java, Scala, C++, SQL.
Big Data Systems	Spark, Hive, Hadoop, Apache Pig.
Database Systems	Snowflake, MySQL, PostgreSQL, Microsoft SQL Server, MongoDB.
Technologies	AWS, Web Services, Unit Testing, Git, Bash.

Languages

English	Full professional proficiency.
Greek	Native proficiency.

Projects

Open-Source & Blogging

08.2009 - Present

I am actively involved in the development of many open-source projects and over the years I have contributed code to several well-known frameworks such as PyTorch, TorchVision, Keras & TensorFlow, Spark etc. You can find more details on my Github account at <https://github.com/datumbox>

I am the main author of Datumbox.com Blog where I publish articles on Machine Learning, Statistics, Natural Language Processing, Computer Visions and Big Data. Moreover I have been a regular author on WebSEOAnalytics.com Blog where I published articles primarily about Analytics & SEO.

Datumbox Machine Learning Framework

07.2013 - 10.2020

I am the author of Datumbox Machine Learning & Statistical Framework. Datumbox is written in Java, open-sourced under Apache License and capable of handling large data. It supports the most popular Machine Learning algorithms used in Classification, Regression, Cluster Analysis, Dimensionality Reduction & Feature Selection and the most important Statistical methods used in Statistical Tests, Data Exploration, Sampling & A/B testing. To get the source code or details on the supported methods visit:

<https://github.com/datumbox/datumbox-framework>