

Deyan Dyankov

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Work Experience

UBS

Director, Algorithmic Trading Model Validation

Apr 2021 - present

- Led a small team of developers working on homegrown libraries, backend tools, and information systems that integrate with the rest of the Firm's ecosystem and facilitate the process of writing validation reports and persisting front office model documentation in a structured manner
- Designed and implemented a performance monitoring system that allows front office and validation teams to track key performance indicators of the models that are being validated
- Worked on choosing and integrating a common MLOps platform to be used by both Front Office and Validation teams in order to improve model development, versioning, testing, and validation process and shorten the time needed for the Validation team to setup and interrogate models as part of the validation process.

Associate Director, Algorithmic Trading Model Validation

Oct 2018 - Mar 2021

- Developing libraries, frameworks, and platforms to support reproducible research and facilitate methodology testing and evidencing of algorithmic trading and other models in use by the bank
- Developing information systems and internal tools to support the work of the Algorithmic Trading Model Validation team
- Validating statistical and machine learning models used for algorithmic trading, hedging, and other electronic trading purposes before they are deployed in production

Vodafone Group Enterprise

Senior Data Scientist

Jun 2015 - Sep 2018

- Leading and mentoring a small team of data scientists and data engineers
- Providing actionable insights based on data for the senior leadership team
- Responsible for the development and support of key applications used by Sales and Sales management teams (revenue forecasting, predicting likelihood of closing a sale opportunity, product recommendations)

IT Architect [contract]

Mar 2014 - May 2015

- Consolidated data feeds from various source systems into a single environment: sales, marketing, customer metrics, and operational data
- Worked in close cooperation with stakeholders and data engineers to ensure smooth migration and operation

Big Data and Analytics Specialist [contract]

Nov 2013 - Mar 2014

- Developed flows and data models for Vodafone's Hadoop data warehouse - data ingestion, sanity checking and aggregation
- Enabled efficient searching mechanisms for support teams and improved their overall productivity

CloudXCell

Database Architect [contract]

Apr 2013 - Nov 2013

- Developed an end-to-end solution for storing and indexing large amounts of web logs in real time for the purposes of client traffic and service usage monitoring, enabling full text

searching and batch processing

Paysafe Group

Database Development Team Leader

Apr 2010 - Apr 2013

- Led a team of database developers following agile development practices
- Responsible for the architecture and development of the company's Data Warehouse

Database Developer

Mar 2008 - Apr 2010

- Supported application developers with database design and performance optimisation
- Developed key functionalities on the database side to be used by backend applications

ProCredit Bank

Database Administrator

Nov 2006 - Mar 2008

- Responsible for administering the bank's production database holding customer data and transactions. Deploying new software releases and managing test environments.

CableSat West

System Administrator and Software Developer

Oct 2005 - Oct 2006

- Developed the Internet Service Provider's information management and billing system (php+postgresql) and enabled the scaling of the client base from 350 clients to over 1,000 in 10 months
- System and network administration

Education

University of Reading, United Kingdom

MSc in Advanced Computer Science, DISTINCTION

Sep 2016 - Sep 2018

- Dissertation: "Multi-Task reinforcement learning for Atari games using deep neuroevolution" (Awarded Distinction)

University of Plovdiv, Bulgaria

BSc in Computer Science

Sep 2009 - Jul 2012

- Thesis: "Scenario-based performance analysis of relational and non-relational database management systems"

Research publications

Salvatore D., R., Deyan, D., Giorgio, J., Di Fatta, G. and Nicosia, G. (2020) *Pareto multi-task deep learning*. In: The 29th International Conference on Artificial Neural Networks (ICANN 2020), 15-18 September 2020.

Dyankov D., Riccio S.D., Di Fatta G., Nicosia G. (2019) Multi-task Learning by Pareto Optimality, In: Nicosia G., Pardalos P., Umeton R., Giuffrida G., Sciacca V. (eds) Machine Learning, Optimization, and Data Science. LOD 2019. Lecture Notes in Computer Science, vol 11943. Springer, Cham

Certifications

Since 2014, I have completed 20+ [Coursera](#) courses taught by major universities focused on mathematics and statistics, data analysis, and machine learning. Full list of certificates is available on my [LinkedIn profile page](#).

Awards and achievements

Bronze medal in National IT Olympiad, Bulgaria, 2005

Bronze medal in National IT Olympiad, Bulgaria, 2004

Technological competencies

Theoretical competencies	data structures, data mining, machine learning, mathematics and statistics, time series forecasting, network analytics, natural language processing, reinforcement learning, evolutionary algorithms, distributed and high performance computing, cloud computing, object-oriented programming and design patterns, test-driven development
Programming	Python, Julia, R, SQL, Java, C/C++, bash, Ruby, Perl, LaTeX
Frameworks	Pandas, scikit-learn, MLJ, PyTorch, Flux, NumPy, NLTK, dash
Database Systems	Hadoop ecosystem, Spark, Neo4J, Oracle, PostgreSQL, MySQL, and other non-relational databases such as MongoDB, Elasticsearch, Riak and HBase
Operating Systems	Linux, *BSD, Windows, OSX

Additional skills and interests

Languages	Bulgarian (native), English (fluent), French (basic), Russian (basic), Spanish (basic)
Sports	Martial arts, yoga, sport climbing, snowboarding, surfing, and other sports