

Anton BELY

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EDUCATION

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| AUG '19 — MAY '22 | M.Sc.Eng. in Computer Science (NLP) , Johns Hopkins University, USA GPA: 4.0. Advisors: Benjamin Van Durme (Primary), Vladimir Braverman (Secondary) Research projects: knowledge graph completion, controlled text generation, schema induction |
| SEP '13 — MAY '18 | B.Sc. in Informatics and Applied Mathematics , ITMO University, Russia GPA: 3.6. Advisors: Andrey Filchenkov (Primary), Konstantin Vorontsov (Secondary) Research projects: plagiarism detection, hierarchical topic modeling Thesis: Construction and Quality Evaluation of Heterogeneous Hierarchical Topic Models • Distinguished thesis award (given to 2 out of approx. 50 undergraduates) |

EMPLOYMENT

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| JUN '22 — PRESENT | Machine Learning Engineer in Knowledge Graphs and AppleBot , Apple, USA <ul style="list-style-type: none">• KG: I am a founding engineer of the ODKE project, which transforms unstructured Web data into millions of facts every week to continuously improve coverage and freshness of Apple KG. I implemented scalable fact extractors using in-house and OpenAI LLMs, built fact verification model using Spark MLlib, built CI/CD pipelines and oversaw integrating ODKE with Apple KG.• AppleBot: I use ML, Airflow, Spark and MapReduce to turn petabytes of semi-structured Web data into billion-scale, high-quality datasets used to train in-house Foundational Models. |
| JUN '21 — AUG '21 | Research Intern in Semantic Machines , Microsoft Research, USA <ul style="list-style-type: none">• Used explainable k-means to speed up labeling data for program synthesis by 35% [paper] |
| SEP '17 — AUG '19 | Senior Data Scientist in Compliance Risks and AI lab , Tochka Bank, Russia <ul style="list-style-type: none">• Client scoring: using Hadoop and Spark, enriched internal data for 200K+ bank clients and 50M+ transactions with Web-scraped public data to improve client scoring accuracy by 10%.• Intent recognition: built ML models to detect intent for the top-90% client questions in chat.• Call center planning: using ILP, automated CC scheduling while improving accuracy by 10%. |
| MAR '17 — AUG '17 | Machine Learning Engineer , Antirutina, Russia <ul style="list-style-type: none">• Tender anomaly detection: developed clustering algorithms to identify bidding anomalies, allowing to discover bid-rigging behavior on auctions with contract amount exceeding \$3B.• Precise IE: designed information extraction pipelines for precise identification of vendor codes, volumes and quantities of goods from unstructured and diverse vendors' price lists. |
| OCT '15 — OCT '16 | Software Engineer in Ads , VK.com, Russia <ul style="list-style-type: none">• URL fraud: built service to periodically detect malicious URL redirect changes in VK ads.• Click fraud: built ML models to detect users that generate fraudulent clicks in VK ad network. Model was deployed semi-automatically and helped recover up to 3% monthly ad revenue.• Ads search: launched moderator search interface (incl. full-text search) over 30M+ VK ads.• Ads scoring: implemented advertiser ranking for faster moderation of top-10% clients. |

TEACHING EXPERIENCE

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| JAN '21 — MAY '21 | Introduction to Algorithms 601.433/633 (Head TA) , JHU (100+ students) <ul style="list-style-type: none">• Managed 9 CAs and 1 TA, created homework and exam problems, held weekly office hours |
| SEP '17 — AUG '19 | Natural Language Processing (TA) , Coursera (40,000+ students by Sep '19) <ul style="list-style-type: none">• Answered 200+ students' questions, helped create homework and project assignments |

LANGUAGES AND TECHNOLOGIES

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| LANGUAGES | Python (advanced); Golang, Scala, JavaScript, SQL, C++, bash (proficient) |
| TECHNOLOGIES | Airflow, Spark, Iceberg (advanced); XGBoost, PyTorch, faiss, AWS, Docker, K8s (proficient) |