

# Igor A. Kheyfets, M.S.

[i.a.kheyfets@gmail.com](mailto:i.a.kheyfets@gmail.com) | <https://www.linkedin.com/in/ikheyfets> | <https://github.com/ikheyfets> | 617-417-2510

Experienced ML Engineer with a passion for solving complex problems with hands-on experience in a dynamic startup environment. Dedicated to leveraging cutting-edge technologies to drive innovation and deliver impactful solutions.

## Work Experience

Lead Machine Learning Engineer, Full-Time – RespirationScan April 2022 – Present

- Led a 4-person team that designed, implemented and documented a machine learning system which makes patient hospital-induced pneumonia diagnosis predictions for a \$20M biomedical start-up
- Created a PyTorch/AzureML-based machine learning and training medium, helping double company value from \$10M to \$20M
- Developed automated, low latency, high throughput data pipelines and Power BI dashboards for internal reporting and investor insight
- Created, coded, and optimized a scalable data aggregation and processing infrastructure with REST APIs

Machine Learning Engineer, Internship – Spotify Summer 2022

- Built classification (Logistic Regression, Decision Tree, Random Forest, Neural Net) and regression (Linear Regression, Support Vector Regression, Neural Net, XGBoost) models in order to forecast the degree to which advertisers will be able to spend their ad campaign budgets
- Assessed the efficiency of analyzed models, developed and deployed a Neural Net based solution with 86% efficiency via the Kubeflow platform

Applications Support Engineer, Full-Time – Speedgoat July 2020 – October 2021

- Developed application notes and examples to demonstrate use of analog and digital I/O interfaces and communication protocols such as Profibus, Profinet, Modbus, CAN, RS232, ARINC, EtherCAT, SPI to clients
- Supported customers in the data ETL (export-transform-load) processes in MATLAB environment
- Designed and implemented maintenance quote generation software, reducing quote generation time by 82%
- Developed an ML solution to forecast the amount of incoming support requests, integrated into team's workflow

## Project Work

Software Engineering Consultant, Contract – BETA Technologies May 2023 – September 2023

- Advised engineering team on system design and implementation of real-time software in MATLAB/Simulink
- Implemented CI/CD pipelines to facilitate deployment of a model-based-design application
- Developed and deployed an AWS-based solution for data integration

Factual Reporting Classifier

- Used PySpark to train a classifier on an archive of financial articles aggregated between 2008 and 2020 following functional programming approach, in order to be able to distinguish objective reports from opinion pieces
- Ran implementation on Google Cloud Dataproc Cluster and used Precision, Recall and F1-score to conclude that SVM approach provided the highest accuracy at 97%

## Education

M.S. – Computer Science, Data Analytics Boston University, 2022

B.S. – Chemical Engineering, Chancellor's Scholarship University of Massachusetts, Amherst

## Technologies

- Software Development: Python (Django, Flask), R, Java (Apollo), Javascript (React), Scala, MATLAB & Simulink, HTML & CSS
- Database Management: PostgreSQL, MongoDB, MySQL, SQLite, Apache Cassandra, Elasticsearch
- Machine Learning: Tensorflow, Tensorflow Extended, Pytorch, Keras, PySpark, Pandas
- Data Visualization: PowerBI, Tableau, Seaborn, Matplotlib, Jupyter
- DevOps: Git, Github Actions, GitLab CI/CD, Docker, MS Azure, Google Cloud Platform, AWS, Unix Scripting, Postman