



# Giorgi Gachechiladze

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## objective

Middle-level full-time remote or on-site position as a Data Scientist, Machine Learning or MLOps Engineer

## professional skills

**Machine Learning** – Experience in building and optimizing Classification, Regression, Ranking and Time-Series forecasting models in domains of NLP, Vision, Tabular using Sklearn, SciPy, NLTK, Keras, XGBoost, Implicit, LightFM, Transformers, Prophet, etc. Keen on coding robust, highly parallelizable, and memory-efficient routines using Dask, Numba, JAX and Cython.

**Data Science** – Experience in Data Mining, Collection, Cleaning, Profiling, and Feature Engineering using BeautifulSoup, Pandas, Matplotlib, Map/Reduce and etc. Ability to apply advanced analytical methods such as clustering and regression analysis, sentiment and semantic mining, association rule and decision tree learning, dimensionality reduction and multivariate statistics using PCA/LDA, etc.

**Web Dev** – Experience in developing progressive SSG/SSR SPAs using TailwindCSS, React, and Next.js. Ability to build dashboards and visualizations for static and real-time data streams using D3 and Plotly. Experience in building RESTful, SOAP, GraphQL, and RPC APIs.

**Dev Ops** – Experience in managing Linux environments, shell scripting and setting up clusters of microservices with CI/CD using Docker, Jenkins, Github Actions and K8s. Familiarity with Prometheus, Grafana and Terraform.

**Databases** – Experience with SQL and NoSQL databases of PostgreSQL, MySQL, MongoDB, Redis along with Firebase and AWS cloud platforms. Familiarity with Snowflake and Google BigQuery.

**Analytics** – Experience with Google Data Studio, Analytics, Tag Manager, Search Console, and Facebook Insights.

## academic experience

### Deep Learning Specialization from DeepLearning.AI • May 2021 - Apr 2022

Foundational program and certification led by Dr. Andrew Ng

- Neural Networks and Deep Learning (Vectorization, Neural Nets, Backpropagation, Activation, etc.)
- Hyperparameter Tuning, Regularization, Optimization (Dropout, Vanish/Expl Gradients, LR decay, etc.)
- Structuring ML Projects (Validation, Metrics, Multi-Task Learning, e2e DL, Transfer Learning, etc.)
- Convolutional Neural Networks (Foundation, Object Det, Facial Rec, Style Transfer, etc.)
- Sequence Models (RNN, NLP, Word2Vec, GloVe, Attention, Transformer, etc.)

### Worcester Polytechnic Institute in Worcester, MA, USA • Aug 2017 - May 2019

Fulbright Scholarship and Graduate Study in Computer Science

- Integration of Optical Flow in Facial Expression Recognition (TensorFlow, Keras)
- Big Data Analytics and Hotspot detection of NYC Taxi trips (Spark, Scala, Python)
- Object Detection with range of Classical CV and Deep Learning models (OpenCV, Keras)
- Genre-aware Music Composer using RNNs (TensorFlow, Magenta, Python)
- Text mining of Wikipedia articles: classification, clustering, and analysis (NLTK, Python)

### Tbilisi State University in Tbilisi, Georgia • Sep 2012 - May 2016

Undergraduate Study in Computer Science

- Spatial Modeling of Cell-Mediated Immune Response to Tumor Growth (C, MPI, Cuda)
- Semantic analysis and classification of Georgian texts (Java, Naïve Bayes/SVM)
- Traveling Salesman Problem using Genetic Algorithms (C++, JavaScript)

### Vilnius University in Vilnius, Lithuania • Sep 2014 - Jan 2015

Exchange Study in Computer Science

- Inference Engine project in Artificial Intelligence (Python, C++)
- Agile project management - SCRUM Master certification masterclass

## Bank of Georgia in Tbilisi, Georgia

### Web Application Developer ⚡ Feb 2017 - Jul 2017

Responsibilities – Development, research, and support of the brand new and existing products across the Digital Channels department in Web and Android.

Highlight – [www.bestofbog.ge](http://www.bestofbog.ge) – branding website I worked on solo, showcasing all the music composed exclusively for the bank's media campaigns, built with modern UI/UX and progressive enhancements. (Progressive SPA, Javascript)

### Software Engineering Intern ⚡ May 2016 - Jan 2017

Gained a general understanding of core banking ins and outs with financial and technical details. Tackled numerous engineering and algorithmic problems using various techniques on a range of platforms. (Java, .NET, Android, iOS, PLSQL, Web)

### საბანო :: ANBANI

An interactive educational platform designed to preserve and support every iteration of the Georgian alphabet on the internet using Web Technologies, Modern Typesetting, and Artificial Intelligence.

- [Anbani.ge](http://Anbani.ge) - a collection of Web and AI tools tasked to help Georgian language and alphabet respond to the digital challenges of today.
- [Anbani Wordnet](#) - First Georgian association wordnet based on ML tools like FastText word embeddings and Bert masked language model to deliver relevant unsupervised word suggestions.
- [Anbani.JS](#) - Javascript toolkit for working with every iteration of the Georgian alphabet.
- [Anbani.Py](#) - Python toolkit for Georgian NLP tasks and more.
- [Anbani TextArt](#) - First Georgian text art generator because why not!

### Flowiz

Leading PyPI-published python toolkit to convert optical flow estimation artifacts into visualizable representations such as images, and videos within a CLI or an interactive web interface on electron. Available at <https://github.com/georgegach/flowiz/>

### Arxiv Trends

A [Twitter Bot](#) tasked to mine social platforms, understand research trends and tweet about them.

Georgian (Native) :: English (C2) :: Russian (B2) :: Lithuanian (A2)

### Fulbright Scholarship

James William Fulbright Scholarship granted by the Tree of Life Foundation and the U.S. State Department that allowed me to pursue Machine Learning graduate study at Worcester Polytechnic Institute in Massachusetts, United States.

### CYBERCUBE 2016

Cybersecurity competition organized by Ministry of Justice of Georgia with 150 participants, lasting 5 hours containing various problem sets such as executable reverse engineering, packet / logfile / malicious file, and memory dump analysis – 2nd place.

100% tuition coverage based on National University Entrance Exams

