

Giorgi Gachechiladze



github.com/georgegach



georgegach@outlook.com



linkedin.com/in/georgegach

objective

Principal-level full-time remote or on-site position as a Data Scientist or Machine Learning 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, BERTopic, Spark ML, etc. Keen on coding robust, highly parallelizable, and memory-efficient algorithms using PySpark, Dask, Numba, JAX and Cython.

Data Science – Experience in Data Mining, Collection, Cleaning, Profiling, and Feature Engineering using PySpark, Pandas, Polars, BS4, Map/Reduce and etc. Ability to apply advanced analytical methods such as clustering and regression analysis, spatio-temporal modeling, sentiment and semantic mining, association rule and decision tree learning, topic modeling, dimensionality reduction and multivariate statistics using PCA/LDA, Randomized Controlled Trials experiment design and hypothesis testing, etc.

Web Dev – Experience in developing progressive SSG/SSR SPAs using TailwindCSS, React, and NextJS. 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 Kubernetes, 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.

Visualizations – Experience with building real-time interactive dashboards and visualizations with D3, Plotly, Matplotlib, Streamlit and PowerBI.

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

professional experience

Bank of Georgia in Tbilisi, Georgia

Senior Data Scientist:• Aug 2022 - Present

Solution architecture, deployment and server maintenance of real-time contextual recommendation engine. Research and application of local and remote Large Language Models in non-financial context. Design and maintenance of awesome streamlit internal apps and dashboards. RCT experiment design, execution and hypothesis testing. Geospatial data clustering and anomaly detection. GCP and OpenAI integration.

Software Engineer:• 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 – branding website I worked on end-to-end, showcasing all of 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)

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

side projects

საბანი :: ANBANI

[Anbani.ge](#) is an interactive platform that uses web technologies, modern typesetting, and AI to preserve each iteration of Georgian alphabet online. Included are [Anbani Wordnet](#), a AI-tool offering unsupervised relevant word suggestions; [Anbani.IS](#) and [Anbani.Py](#), toolkits for tasks related to the Georgian alphabet and NLP; and [Anbani TextArt](#), the first Georgian text art generator.

Flowiz

Leading Python [toolkit](#) to convert optical flow estimation artifacts into visualizable representations.

Arxiv Trends

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

human languages

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

awards and misc

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

First-ever Cybersecurity competition organized by the 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