Taras Shevchenko

Executive summary

1. Strong in-depth skills in STL, C++, Python, general-purpose algorithms and generic programming.
2. Bottom-up software design.
3. Strong understanding of algorithms, networking, systems architecture and end-user experience.
4. Deep understanding of compilers and column-store databases.
5. Systems programming.
6. In-breadth and in-depth understanding of Open Source software facilities.

The last industrial experience

Rails Reactor (2016 - present)

Key results:

- Working on Learning To Rank at Giphy.
- Improved the FastText performance for some tasks more than by a factor of 2.
- Adopted Bayesian approach for evaluation of A/B tests at Giphy.
- Designed and implemented a language detection service for Giphy Search team.
- Designed and implemented Trending Search for Giphy.
- Designed and implemented a flight planning system.
- Created a Machine Learning model for Ideal Customer Profile evaluation.
- Implemented an API for the management of available Kubernetes services and external integrations at Giphy.
- Designed and implemented a few e-commerce services and APIs.
- Worked on visual odometry for self-driving cars.
- Contributed to ads inventory management system.

Daily activities:

1. Design and implementation of Machine Learning pipelines.
2. Systems design.
3. Programming.
4. Performance measurements.

5. Writing Test Cases.
6. AB testing.
7. Code reviews.
8. Negotiations with clients.

Open Source contribution

Product	Purpose	Contribution
facebook/FastText	Word embeddings and supervised models	2x performance improvement for training and inference

Talks

Title	Place	Summary
6 Algorithmic Journeys with Concepts	CppCon 2019	How to use concepts for the design of generic algorithms
Writing native extensions with pybind11	Rails Reactor	How write something, which is faster than numpy
Algorithms Lectures	Rails Reactor	Internal lectures about general-purpose algrihtms

Education

Institution	Degree	Specialization	Thesis
Institute for Applied System Analysis at NTUU Kyiv Polytechnic Institute	Master's	System Analysis and Control Theory	Multimodal Text Search System
	Bachelor's	Artificial Intelligence	Distributed Search Relevance Evaluation

Other information

- Solid mathematical culture.
- ACM ICPC semifinalist.

Skills

Programming languages	C++(98,11,14,17,20), Python, Java, Scala, Ruby, JS
C++ stack	Boost libraries (mostly Align, Asio, Beast, Interprocess, Geometry, and Graph), Adobe Source Libraries, Seastar, Ninja-build, CMake, Clang, GCC, Protobuf, FlatBuffers, AddressSanitizer, MemorySanitizer, ThreadSanitizer, LeakSanitizer, NginX modules development
Python stack	CPython, Cython, Pybind, SQLAlchemy, Flask, Django, Sanic, Django Rest Framework, Sphinx, Google OR-Tools, Celery, Redis-Py, Credstash, Django OAuth Toolkit, VirtualENV, SciPy, NumPy, Matplotlib
Operating systems	GNU Linux and FreeBSD
Technologies	Bash, Docker, Kubernetes, Vagrant, Nginx, Haproxy, Vault
Databases, etc	Postgres, ClickHouse, MySQL, ScyllaDB, SQLite, Memcached, Redis, LevelDB, WiredTiger
Machine Learning	Deep understanding of fundamental methods, numpy, scipy, PyMC3, pytorch, tensorflow, catboost sklearn, xgboost, shap, fastText, StarSpace
Other	Payment Systems, CI/CD process, AB-testing

Contacts

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