Andrew Kurochkin

Tech Lead & Lecturer

🔗 andrewkurochkin.com
✉ me@andrewkurochkin.com
📍 Lviv, Ukraine

KEY SKILLS

Computational Social Science
Behavior Analysis
System Design
Research
Negotiation
Communication
Presentation
Data Analytics
Programming
Problem Solving
Database Design
Data Visualization
Leadership

TECHNICAL SKILLS

Python & R
UNIX / Linux
BI (Looker, etc)
GCP, AWS
GIT, CI/CD
SQL, BQ, ETL
MTurk, A/B testing
Pandas, Numpy
Math Modeling

Education

Data Science, Master degree Ukrainian Catholic University Thesis: Meme Generation for Social Media Audience Engagement	2018 - 2020
Software engineer, Bachelor degree National University "Lviv Polytechnics" Thesis: Hiring automation for IT company using ML	2013 - 2017

Experience

Teaching Assistant, National University of Kyiv-Mohyla Academy — 2022 - pres

Created and conducted author's courses:
- ➢ Computational Social Science
- ➢ Python (for Data Science)
- ➢ System and API Design

Tech Lead, Digital Media Agency, Capgemini — 2021 - 2022
- ➢ Designed and implemented enterprise-level solutions
- ➢ Leaded core team to build ETL big data solution
- ➢ Planned and coordinated work of engineering teams.

Data Engineer, Digital Media Agency, Capgemini — 2017 - 2021
- ➢ Built BI infrastructure for an advertising data
- ➢ Implemented BI semantic layer
- ➢ Integrated data warehouse architecture with big data technologies
- ➢ Developed high-performance data processing procedures
- ➢ Reviewed, analyzed, and ensured the quality of data loaded into the database systems from hundreds of sources.

Data Scientist, R&D consulting, Palo Alto Insight — 2018
- ➢ Researched generative adversarial networks
- ➢ Created an automated pipeline for effective anime faces recognition, capturing and processing
- ➢ Developed NNs to produce new anime faces.

Principal Developer, Headliner — 2015 - 2017
- ➢ Cooperated with client's company executives to set up priorities and establish requirements
- ➢ Collected and analyzed pre-compiled data to generate reports
- ➢ Designed and implemented highly efficient data collection procedures to boost overall performance.

Full-Stack Web Developer, Freelance

➢ Managed business processes, created proposals and project requirements
➢ Designed and implemented various functionalities to tens of projects
➢ Cooperated efficiently with team of freelancers.

Projects

Meme Generation for Social Media Audience Engagement
A memes dataset of ~650K meme instances was collected. Applied SOTA technique towards computational creativity problems. Used GPT-2 in the combination of the other methods for meme generation. Built pipeline to compare machine-generated memes with human-created. Justified that MTurk workers can be involved in the approximate estimating of users' behavior in a social network, to measure engagement. Generated memes cause the same engagement as human memes, which didn't collect engagement in the social network (historically).
Tools: python, GPT-2, GCP, MTruk, tensorflow, Azure, S3.

Anime face generation by GAN, Silicon Valley
R&D project for the San Francisco based company.
Solution for collecting anime faces dataset from videos was created. Trained generative adversarial networks (GAN) to generate new faces for cartoon and anime characters.
Tools: python, tensorflow, AWS, S3.

Data engineering for Digital Media Agency, Worldwide
The agency manages over $600MM in media and deploys campaigns across world markets. Our solution delivers tons of data from advertising platforms to customers. As a part of the team, I'm responsible for BI infrastructure for the company, data quality management (DQM), creating reports and dashboards for the system and business processes monitoring, integration of different data warehouses in one architectural solution.
Tools: Looker, python, hive, presto, PostgreSQL, SQL.

Panacea. CRM for city Ambulance
Software for the Lviv Central Ambulance Station. It allows to gather statistics, search for lost people, generate reports, and create dashboards for the Ministry of Health of Ukraine. The solution has been in effect at the city Ambulance Station from 2015 till 2018.
Tools: PHP, PostgreSQL, Ubuntu, JS, AngularJS.

Recommendation system for recruiters
The software evaluates how new candidates suit unfilled positions based on social network data and feedback from interviewers. The developed machine learning model showed ~70% accuracy.
Tools: python, pandas, scikit-learn, seaborn, casperJS, phantomJS, PostgreSQL, PHP, JS, AngularJS.

Optimizing ambulance service with AI instruments
Research was based on a dataset of 2 years of ambulance exits. We investigated data and created a model for prediction of emergency call result from primary data.
Tools: R, python, ggplot2, pandas, scikit-learn, numpy.

Other activities

1. 2022 - pres, **Lecturer and Mentor** at National University of Kyiv-Mohyla Academy.

2. 2022, **Conducted course** "Computational Social Science" at Ukrainian Catholic University.

3. 2020, Best presentation award **ICCSS 2020: XIV. International Conference on Computational Social Science.**
   Amsterdam, Netherlands

4. 2020, Poster at the **Stanford 2020 Conference on Computational Sociology**
   iriss.stanford.edu/css/conferences/2020-conference-computational-sociology/agenda

5. 2020, Talk at **UCU webinar** – "Meme Generation for Social Media Audience Engagement [Part #1]"

6. 2019, **Masters Symposium** on Advances in Data Mining, Machine Learning, and Computer Vision (MS-AMLV 2019)
   apps.ucu.edu.ua/en/masters-symposium-amlv-2019

7. 2018 - 2019, **Program committee member** in the "Morning at Lohika", monthly local tech talks.
   Talks - youtube.com/channel/UCRGTTEhkjGTfpypmHFtT_Ww
   FB community - facebook.com/groups/morning.lohika