Bogdan Ouatu

Software Engineer

Bogdan Ouatu
Bucharest, Romania

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GitHub: github.com/ilikehaskell

Skills

Software Development • Recommender Systems • Data Science • PyTorch • Machine Learning • Natural Language Processing (NLP) • Computer Vision • Python • Data Structures • Google Cloud Platform (GCP) • JavaScript • SQL • FastAPI • Django • Flask • Streamlit

Experience

Consultant / Freelance developer

Jan 2019 - PRESENT

Built a location-based money transfer platform in Django as a proof of concept for a finance startup to showcase their Open Banking APIs; the proof of concept was selected for the Central Europe Open Banking competition and won a special prize from Google.

Created business intelligence (BI) apps in Streamlit and Vue to explore natural language data, such as customer support logs and net promoter score forms, leading to substantial reprioritization of business.

Designed and developed an analytics and back testing app for trading stocks and options, decisive for choosing the main investment strategy of the client.

Developed Forex scripts and indicators for retail investors to help them generate consistent alpha for two months.

Implemented an on-device speech-to-speech translation prototype for a client with results comparable to the state of the art for the English-Chinese language pair.

Adore Me / Artificial Intelligence Engineer

Jun 2021 - Aug 2022

Developed and deployed the company's first data-driven recommender system that is currently in production and makes around 15–20% of recommendations for operations worth around $120 million per year in revenue.

Created an aspect-based sentiment analysis algorithm to gather product preferences directly from clients' wishes and automatically integrate them into the recommender system.

Built a BI app on top of the aspect-based sentiment analysis algorithm to help product owners prioritize work by letting them mine and analyze submitted forms from clients, substantially changing the focus of two teams.

Developed a similarity and clustering color algorithm to find complementary products and comparable items when predicting the

performance of to-be-launched garments.

Built a Google Calendar data analytics pipe to compute and monitor time spent in team meetings to identify harmful patterns and potential burnout for a few colleagues.

The University of Bucharest / Graduate Teaching Assistant

Feb 2021 - Aug 2022

Teached *Formal Languages & Automata Theory* to undergraduate students.

Organized and held laboratories where students learned to implement different domain specific algorithms.

Used GitHub classroom to track and manage assignments and automate assignment grading.

Projects

Parse Bank Statements

https://github.com/ilikehaskell/parse-bank-statement
Many Romanian banks currently do not export data in a friendly format, so parsing PDF bank statements is required. The project was about a simple script parsing bank statements for Raiffeisen and Alpha Bank. Every financial department can use it for easier auditing transactions made on company credit cards, saving 25 hours a year of error-prone work. I also use it to track my expenses.

Python Dependency Scripts

https://github.com/ilikehaskell/python-dep-scripts
This project provides terminal commands to facilitate some of the most challenging problems in the Python ecosystem, including Python version management, virtual environments, and dependencies. It ties together two other tools, pyenv, and Poetry. For more details, the README file in the GitHub repository reads as a tutorial and an article.

Covid Data Visualization

https://ilikehaskell-covid-data-viz-covid-vreir9.streamlitapp.com/
The COVID-19 pandemic led to a significant loss of human life worldwide and taught us essential lessons to protect ourselves and others by staying informed. This project aims to provide the data regarding vaccination, variants, and notification rate to be easily seen and understood. The demo app offers many options, such as comparing data from multiple countries, selecting preferred plots for data visualization, and displaying the official PDFs from the European Centre for Disease Prevention and Control web page containing a data description.

Eletron Voice Cloning

A state-of-the-art (with regard to how natural the voice sounds) text-to-speech synthesis application for the Romanian language that can clone women's voices with less than one hour of speech. The cloned voice achieves a 4.47 +-.15 out of 5 naturalness score as measured by a medium human opinion score on the Likert scale compared to real voices' 4.80+-.14.

A direct comparison was made to the previous SotA and Google Translate Romanian voice. Over 90% of subjects find Eletron to have a more natural voice, and 100% of subjects find it more natural than Google Translate voice. Eletron is based on the Tacotron model and trained using GCP resources and the SWARA dataset.

Education

The University of Bucharest / Master's Degree in Artificial Intelligence
2020 - 2022, Bucharest, Romania
4.0 GPA

The Alexandru Ioan Cuza University / Bachelor's Degree in Computer Science
2016 - 2019, Iasi, Romania

4.0 GPA

Certifications

Neural Networks and Deep Learning
Feb 2020 - Present

Awards

1st place at Quant Challenge
Issued by London Stock Exchange Group Romania · Jun 2021
Predicted FAANG stocks for a period of 5 days

Google Cloud prize winner at Open Banking Hackathon - CEEedition
Issued by Google Cloud · Jan 2020
Online Vagabonding - a location-based money transfer and donation platform for nomads

Bronze medal as team leader at the Blitz Team Internet Mathematical Olympiad
Jan 2017

3rd place at the Romanian National Contest of Informatics "Urmasii lui Moisil"
Mar 2014

1st prize at the Regional Olympiad of Computer Science
Jan 2014