

# Sofia Semenova-Zvenigorodskaya

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## Education

### Higher School of Economics, GPA 8.55/10

Sep 2020 — Jul 2024

*Bachelor's of Science in Computer Science, Applied Mathematics and Informatics*

*Russia, Moscow*

- C++, Algorithms and Data Structures, Distributed Systems, Service-Oriented Architectures, Computer Architecture and Operating Systems, Concurrency, Networks, Database Systems, Basics of Software Engineering, Introduction to Machine Learning, Probability Theory and Mathematical Statistics

### University of Bern

Jan 2022 — Jul 2022

*Study Exchange Program*

*Switzerland, Bern*

- Computer Architecture, Introduction to Blockchain

## Work experience

### Meta

Oct 2022 — Sep 2023

*Business Engineering Intern, GBG In-Market, EMEA-Northern Europe*

*United Kingdom, London*

- Created a method for identifying regressions in the extractions of a Chrome extension used for manually annotating product details like price, title, and images on a webpage. These regressions typically occurred due to changes on the client's website, so affected catalogs were automatically sent for human re-annotation.
- Identified that ~100 catalogs with products have regressions daily, which can now be re-annotated through the process.
- Attended client meetings to find and fix problems within their Conversions API Gateway setup impacting Event Match Quality.
- Developed the functionality to set up the Conversions API Gateway for multiple Meta pixels right from the beginning, addressing the needs of approximately 10% of clients.

### Yandex

Jul 2021 — Oct 2021

*Intern, Yandex Object Storage, S3*

*Russia, Moscow*

- Researched on the strengths and weaknesses of Yandex Object Storage vs competitors, using Yandex Tank.
- Integrated an internal S3 with another inner service using REST API, GoLang, SQL.
- Enhanced the mechanism of managing access to buckets (ACL) in the internal Object Storage.

### Google

Jul 2020 — Sep 2020

*Student Training in Engineering Program Intern*

*Remotely*

- Developed an open-source web application ([github.com/googleinterns/step244-2020](https://github.com/googleinterns/step244-2020)) in a team. The app helps users find events and communities based on their interests and geodata. Provided information is synchronized with Google services (Calendar, Maps). I fully accomplished one specific part of the project: retrieving information about future events. Made both back-end (Java, Maven, JUnit, Mockito) and front-end (HTML, CSS, JavaScript).
- Taught myself Java and various Google APIs (Datastore, Authentication, Charts, etc.) to create a personal portfolio website ([github.com/LadyPython/step-2020](https://github.com/LadyPython/step-2020)).

### Yandex

Jan 2020 — Jun 2020

*Intern, Internet of Things, hub for devices*

*Russia, Moscow*

- Optimized the transmission of monitoring information to reduce data transfer over the wire.
- Implemented JSON-RPC API as an alternative for REST API for better user and device manufacturer experience.
- Improved inflection of words in the app linking C library to Go code using cgo.
- Learned how to use Docker, Flask, Unicorn and NGINX for adding examples of Python code to the documentation.

## Technical Skills

**Languages:** Python, C++, GoLang, SQL, Hack, JavaScript, Java (basics), Assembly (basics)

**Technologies:** Git, Docker, AWS, React, SQLite, SQLAlchemy, LaTeX, HTML, CSS, CMake, NumPy, Matplotlib/Seaborn

## Projects

### Company mentions analyzer, supervised by Kazakov Eugene, SWE at Meta

[github.com/amgfrthsp/company\\_mentions](https://github.com/amgfrthsp/company_mentions)

- Team developed the Telegram-bot that finds and analyses mentions of companies in news and social media. Bot is written on Python, mentions are extracted with websites' API or with web scraping (requests, BeautifulSoup4), then sentiment-analysis is used for understanding the context of mentions (dostoevsky, vaderSentiment). I learned good coding practices such as ORM (SQLAlchemy) or CI/CD (github actions).

### Hash Table

[github.com/LadyPython/HashTable](https://github.com/LadyPython/HashTable)

- Implemented Hash Table with Separate Chaining in C++. Dynamic rehashing with doubling and halving the table size.

### Smart Pointers, Scheme Interpreter

- As part of university tasks, I implemented Unique and Shared smart pointers in C++ and interpreter of Scheme in C++. Maintained processing of expressions, exceptions, variables, conditions, lambdas and lambda captures.

### Contest

[gitlab.com/DeadUnicorn666/ctf-platform](https://gitlab.com/DeadUnicorn666/ctf-platform)

- Created the informatics competition for the 7<sup>th</sup> grade with my classmate, I was responsible for the front-end (Bootstrap).