

SVETLANA SHMIDT

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Lana243

EDUCATION

Bachelor Degree in Computer Science and Math

Saint-Petersburg State University

July 2019 – Present

WORK EXPERIENCE

Google SRE Intern 2021

Canary Analysis Service

July 2021 – September 2021

Dublin, Ireland (remotely in Russia)

Canary Analysis Service (CAS) is a shared centralized service at Google that offers automatic analysis of key metrics during a production change which quickens development, improves production safety, and helps prevent outages.

The goal of the internship was to improve the server latency analysis to have more accurate predictions and decrease the time of the experiment running.

During the internship the following points were covered:

- Basics of Bayesian inference for data analysis were studied.
- Usage of the Bayesian approach allowed us to analyze the probability of the outage occurred that helps to calculate business metrics and improve the decision-making process.
- Using this knowledge, different latency analyzers were proposed, implemented, and tested.

Technologies: C++, Python for data analysis.

Google STEP SRE Intern 2020

Collectd

July 2020 – September 2020

Munich, Germany (remotely in Russia)

Intern in Manage@Scale team. The goal of the internship was to create and integrate distribution metrics to open-source monitoring daemon **Collectd**. The completed tasks during the internship:

- Proposed, implemented and tested an approach of storing new metrics using the advanced data structure.
- Using benchmarks analyzed the different approaches to the data structure implemented by my STEP partners and me.
- Integrated new data structure to some of the plugins of Collectd: ping plugin and Stackdriver plugin.

Technologies: C, valgrind, kcache-grind.

ACHIEVEMENTS

National

- 2019 – **Prizewinner, 34 place out of 266:** All Russian Olympiad in Informatics. Innopolis, Russia.
- 2018 – **Prizewinner, 91 place out of 244:** All Russian Olympiad in Informatics. Ulyanovsk, Russia.

International

- 2017 – 2019 – **Finalist:** Open Olympiad in Informatics. Moscow, Russia.
- 2019 – **Prizewinner:** Innopolis Open International Olympiad in Informatics. Innopolis, Russia.

SKILLS

C/C++

Python

Kotlin

Android

Haskell

COURSE WORK

Heuristic Path Planning Research

Python

November 2021 – present

During the course on Heuristic Search in Robotics, researched Safe Interval Path Planning algorithm that is used for planning in area with dynamic obstacles and multi-agent path finding.

Camera Tracker

Python

September 2021 – December 2021

During the course on 3D Computer Vision, implemented the camera tracker that given a video predicts the camera poses in 3D and finds a cloud of 3D points represented on the video.

Android App for Social Network

Kotlin

September 2021 – present

During the course on Mobile Development, created a mobile app for students' social network.

Checkers

Kotlin

February 2020 – May 2020

As a course work, implemented a Checkers game with Artificial Intelligence Player based on minimax algorithm with alpha-beta pruning and genetic algorithms.

EXTRACURRICULAR

Mentor of Algorithmic Courses by University of California San Diego and Higher School of Economics

Coursera

September 2020 – Present

Teacher of Algorithms and Data Structures

Summer Programming School

July 2019

NERC ICPC Volunteer

Russia, Saint-Petersburg

December 2019