

EKATERINA DAGKESAMANSKAIA

Bioinformatician & Biomedical Data Analyst

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Tbilisi, Georgia

Pfizer, 2022

WORK EXPERIENCE

Bioinformatician

Digital Genomics

Mar 2022 – Jul 2022

Moscow, Russia [Remotely]

- Created database architecture and prototype in MongoDB
- Made a pipeline for analysis of cancer secondary cell lines samples on passenger and oncogenic SNPs and CNVs

MQL

Python

Bash

IGV

Snakemake

Data Analyst

Semantic Hub Ltd.

Jun 2020 – Jan 2021

Moscow, Russia

I. Efimenko

- Completed 5 projects on orphan diseases: statistics & visualization of patient journey data obtained by NLP
- Retrieved data from ArangoDB
- Discovered and fixed errors of the core NLP algorithm

AQL

Python

JS

I have also been working as a Russian language teacher for foreigners and a English language teaching assistant at international companies.

INTERNSHIPS

Neurobioinformatics intern

Max Planck Institute of Neurobiology

Mar 2022 – Aug 2022

Munich, Germany

C. Mayer

- Preprocessed two datasets of transcriptome and lineage data
- Rewriting the preprocessing pipeline on snakemake

Bash

Python

R

Snakemake

Mitochondrial bioinformatics intern

Genetico Ltd.

Jun 2021 – Jul 2021

Moscow, Russia

D. Khmelkova

- Tested the performance (runtime, sensitivity & specificity) of mitochondrial-specified vs general variant calling and annotation tools

Bash

IGV

Structural bioinformatics intern

Cell Biology Research Center

Jul 2019 – Aug 2019

Montpellier, France

A. Kajava

- Analyzed and compared algorithms of 20 structure and sequence based predictors of mutation impact on protein structure

Bash

Python

JS

PyMOL

EDUCATION

M.Sc. in Life Sciences

Skoltech, Russia

2020 – 2023

E.Khrameeva

GPA: 4.5 / 5.0

Thesis: Prediction of 3D genome folding based on multi-omics data using Akita

P. Khaitovich

First year project: Transcriptomics, lipidomics & connectome coupling for human brain age gap analysis in patients with schizophrenia

Python

R

B.Sc. in Intelligent Systems

RSUH, Russia

2016 – 2020

V. Finn

GPA: 4.9 / 5.0

Thesis: Software tools for the improvement of prediction completeness by the JSM-method for pancreatic diseases diagnosis

C#

CONFERENCES

Participant

KIDB RAS school

Oct 2021

Moscow, Russia

Participant

SCAMT Workshop Week

Jan 2020

Saint-Petersburg, Russia

Project: "A computational method for chemical reaction prediction"

Speaker

Student conference of IL RSUH 2018

Oct 2018

Moscow, Russia

Preprint: "Foreign objects in the linguistic space of human body"

Participant

Summer Neurolinguistics School 2017

Jun 2017

Moscow, Russia

INTERNSHIPS (CONTINUED)

Oncobioinformatics intern

OncoUnite Ltd.

📅 Jul 2018 – Aug 2018

📍 Skolkovo, Russia

👤 D. Chebanov

- Developed a console app for recognition cancerogenic SNPs in patients' DNA aggregating data from ClinVar, dbSNP and COSMIC

Bash

Python

SKILLS

Bioinformatics skills

Genomics & Transcriptomics:

- Raw RNA-seq and DNA sequencing data pre-processing: mapping, filtering, QC, basics of batch effect correction
- Sequence analysis using web and server versions of the main databases and sequence alignment tools (GenBank, BLAST, InterPro, Genome Browser, ENSEMBLE)
- Construction of mutation profiles using COSMIC mutational signatures
- Basics of differential gene expression analysis
- Lineage tracing sequencing data preprocessing and combining with scRNA-seq

Multionics:

- Integration of different omics data types (ChIP-Seq, Hi-C, GWAS, bulk transcriptomics)

Structural bioinformatics:

- Protein structure prediction & visualization, prediction of protein cellular localization and transmembrane topology, prediction of the impact of a mutation on protein stability

Programming

Fluent

Python

Bash

Familiar

R

SQL

Acquainted

C++

C#

JS

Kotlin

Java

Prolog

Lisp

Libraries & Frameworks

Git

Microsoft TFS

Docker

Jupyter Notebook

Seurat

DESeq

Pandas

Biopython

Snakemake

Lab skills

PCR

protein expression & purification

cloning

gene knock-out

Soft skills

Project management

Event-making with zero resources

VOLUNTEERING

Web & SMM-designer, Choose to help ☯

📅 Mar 2022 – Present

Volunteer Coordinator, Playground Tbi ☯

📅 Mar 2022 – Present

Creative association member, Tochka190

📅 Apr 2021 – Present

Main festival organiser, Doroga v les

📅 Apr 2021, Aug 2021

SMM & design worker, House of Scientists

📅 Oct 2020 – Sep 2021

Translator & Database Tester, OVD-info

📅 Jan 2021 – Apr 2022

Tutor, Puschino Winter School

📅 Mar 2019

Volunteer for the Homeless, Sant'Egidio Moscow

📅 Oct 2018 – Dec 2019

Organizing Committee Member, Traditional Linguistics Olympiad

📅 Sep 2017 – May 2019

Computer Designer, Summer Linguistic school

📅 Jun 2017 – Aug 2018

LANGUAGES

Russian – Native

English – C1, IELTS 7.5

German – A2

French – A2



REFEREES

Prof. Andrey Kajava, CNRS CRBM, France

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Prof. Philipp Khaitovich, Skoltech, Russia

✉ P.Khaitovich@skoltech.ru

Irina Efimenko, Semantic Hub Ltd., Russia

✉ ie@semantic-hub.com