EVGENIIA CHIKINA

I am Bioinformatic Master student who previously graduated from Medical University. I use all of my medical and biological knowledge to combine with the world of computer science. At the moment I have especially good knowledge and skills in analyzing RNA sequencing data. Now and in the future I try to develop and gain knowledge in various aspects of bioinformatics, in particular in such areas as: RNA-seq, epigenetics, multi-omics data analysis.

View and download this CV with links at https://github.com/JaneChik/cv or here

CONTACT

- chikina.evgeniia@gmail.com
- github.com/JaneChik
- evgenia_chikina

SKILLS

- R
- Python
- Bash

LANGUAGES

- Russian
- English
- German

EDUCATION

Current | 2020 — **Master degree, Applied Mathematics and Informatics, Bioinformatics and System Biology**

ITMO University — Saint-Petersburg, Russia

- Thesis: Metabolic Modules Identification in Single-Cell Data
- Course Project: Identifying Metabolic Modules in TCGA Datasets
- Semester Project: Effects of Background RNA Noise on Differential Expression Results in scRNA-seq

2020 | 2014 — **Specialist degree (with honors), Pediatrician**

Saint-Petersburg State Pediatric Medical University — Saint-Petersburg, Russia

- Pediatrician

RESEARCH PROJECTS

Current | 2021 — **Metabolic Modules Identification in Single-Cell Data**

ITMO University — Saint-Petersburg, Russia

- Thesis
- Main goal of the project is to extend applications of the GAM-clustering tool on the *single-cell RNA-seq* data. In order to find optimal **clustering** algorithm performed and analysed multiple clustering strategies for the single-cell RNA-seq data. Used **trajectories** and **gene set enrichment** analysis for biological interpretation of the results. Involved in the *modification of the tool.*

2021 — **Identifying Metabolic Modules in TCGA Datasets**

ITMO University — Saint-Petersburg, Russia

- Course Project
- With previousy developed GAM-clustering algorithm analyzed TCGA datasets (LUSC) - *bulk RNA-seq* data. Identified metabolic modules and performed biological analysis of them. During work was involved in *the modification of the tool and testing.*

*Made with the R package **pagedown**.*

The source code is available on github.com/nstrayer/cv. Modified source code for this CV is available here

Last updated on 2022-06-13.

2020

Effects of Background RNA Noise on Differential Expression Results in scRNA-seq

ITMO University — Saint-Petersburg, Russia

- Performed standart analysis of the single-cell data with Seurat pipeline and integration of multiple samples using SCTransform intgration. With help of `DropletUtils` R package identified ambient RNA and tried to estimate the impact of it on the differential expression results.

OTHER PROJECTS

2022

DiveR ShinyApp

Perdana University (Students Project)

- DiveR is a graphical user interface (GUI)-based web application hosted on R Shiny for the visualization of DiMA results, a tool designed to facilitate the dissection of protein sequence diversity dynamics for viruses.
- Modifications of ShinyApp scripts
- https://github.com/pendy05/DiveR

CONFERENCES

2018

Nationwide scientific forum of students and young scientists with international participation «Student science – 2018»

Saint-Petersburg State Pediatric Medical University — Saint-Petersburg, Russia

- Research Work: “Study of microbiological landscape and microorganism susceptibility analysis to antibacterial drugs in the neonatal and premature infants intensive care department, cardiac intensive care department and neonatal pathology department for the period from 2014 to 2017”
- 3d degree diploma

PUBLICATIONS

Gainullina A., Chikina E., Mogilenko D. et al. Open Source ImmGen: network perspective on metabolic diversity among mononuclear phagocytes, bioRxiv 2020.07.15.204388; doi: https://doi.org/10.1101/2020.07.15.204388 (under review)

ACHIEVEMENTS

2021

NGSprint Hackaton

NGSchool — Discord, online

- Project: Data Visualization in Bioinformatics
- Result: ShinyApp[1]
- Certificate by the link[2]

2021

Bioinformatics Contest 2021

Stepik, Online

- Participant[3]

2018 **Annual University Pediatrics Olympiad**

Saint-Petersburg State Pediatric Medical University — Saint-Petersburg, Russia

• 1st degree diploma

2017 **Olympiad in Propaedeutics of Children's Diseases at St. Petersburg State Pediatric Medical University**

Saint-Petersburg State Pediatric Medical University — Saint-Petersburg, Russia

• 2nd degree diploma

TEACHING EXPERIENCE

2020 | 2018 **Chemistry/Biology School Tutor**

Saint-Petersburg, Russia

• I was teaching 6-9th grade school students chemistry and biology to increase their knowledge in the field and in some cases helped studying for school exams.

COURSES

2022 **Introduction to Probability and Data with R (en)**

Duke University — Coursera, Online

• https://www.coursera.org/account/accomplishments/certificate/RMP3NFYZA5BN

2020 **Molecular biology of the cell (ru)**

Bioinformatics Institute — Stepik, Online

• https://stepik.org/cert/353448

2019 **Programming in Python (ru)**

Bioinformatics Institute — Stepik, Online

• https://stepik.org/cert/209363

LINKS

1. https://github.com/JaneChik/NGSprint_Hackathon-TCGA_RShinyApp
2. https://drive.google.com/file/d/1PS_joxoZYsNmJzZyqR5xkMqH9ZiE5UrO/view?usp=sharing
3. https://drive.google.com/file/d/1SEgIqYqY7m2tne_XPy9rAscXteFH957N/view?usp=sharing