Roman Novikov

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About

Software Engineer with over 3 years of experience in developing and optimizing data processing pipelines, automation systems, and cloud-based solutions. Proven track record of leading projects that increased processing efficiency by 40% and reduced errors by 30%. Skilled in designing and maintaining scalable, robust systems using modern technologies. Experienced in managing complex workflows and collaborating across multidisciplinary teams to deliver high-quality software solutions. Passionate about leveraging cutting-edge technologies to drive innovation and improve system performance.

Skills

Languages	Python, Bash, JavaScript
Technologies	FastAPI, Pytest, Docker, Kubernetes, Jenkins, Concourse, AWS, PostgreSQL, ClickHouse, Tortoise ORM, Kafka, RabbitMQ, KeyDB

Experience

BostonGene   *October 2022 - October 2024*
Software Engineer   *Waltham, MA*

- Developed and standardized data pipelines using Python, CWL, AWS, Docker, and Concourse, leading to a 30% faster integration of new features and significantly reducing development time.
- Automated data validation processes for large datasets, increasing processing efficiency by 40% and reducing error rates by 30%.
- Streamlined workflows across two R&D labs by updating LIMS systems, reducing manual entry time by 50% and improving collaboration between teams.
- Integrated sample tracking systems using Python, PostgreSQL, Docker, and Concourse, achieving a 35% improvement in data accessibility and reducing latency in research operations.

                                                                September 2021 - October 2022
Data Analyst   *Waltham, MA*

- Developed an analytical system using FastAPI and JavaScript significantly speeding up sample verification processes by 60%.
- Optimized data workflows for immunoproteomic sample tracking, automating key processes and reducing data processing time by 45%.

Education

Moscow Institute of Physics and Technology   *September 2022 - June 2024*
Master's degree in Applied Mathematics and Physics, Major in Computational   *Moscow, Russia*
Bioinformatics, Professional qualification in Data Science
Awards: Scholarship of Vladimir Potanin Foundation

Lomonosov Moscow State University   *Septembre 2017 - June 2021*
Bachelor's degree in Biology, Major in Bioengineering   *Moscow, Russia*

Projects

iGEM projects 2020   *March 2020 - November 2020*
Our team received a gold medal for this project   *Moscow, Russia*
Developed a CRISPR/Cas-based biosensor for hepatitis C virus detection, achieving 95% sensitivity, 98% specificity, and reducing detection time by threefold compared to conventional methods.

iGEM projects 2019   *March 2019 - November 2019*
Successfully presented the project at the international competition in Boston   *Moscow, Russia*
Created a portable biosensor for Lyme disease detection with 95% sensitivity and 100% specificity, cutting detection time by fivefold and significantly enhancing rapid diagnostic capabilities.