

Sergiu Siminiuc

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PROFESSIONAL SUMMARY

Skilled CTO & Software Engineer with advanced expertise in clinical data algorithms and e-commerce analytics. Follows an MS in Informational Security and holds a BS in Computer Science and Engineering. Possesses a profound technical proficiency across a wide array of programming languages and frameworks, as well as extensive experience with database and DevOps tools. An adept collaborator on international projects, including the MAGIC initiative, combining genetics, bioengineering, and advanced microfabrication technologies. Adept at semantic modeling and data repository management for critical medical research. Proven track record in leading complex projects, synthesizing multidisciplinary expertise, and fostering innovation. Dedicated to enhancing data-driven decision-making processes and optimizing operational efficiencies through technological excellence.

TECHNICAL SKILLS

Languages : Java, Python, SQL (Postgres, MS-SQL, MySQL), JavaScript, Swift, PHP, Kotlin, JSON, Groovy, Go.
Frameworks : AKKA, React Native, SpringBoot, Node.js, Flask, Django, ExpressJS, Spring Data, Spring Cloud, JPA/Hibernate, CKAN, Kafka, Hazelcast, Redis, RabbitMQ, Solr.
DevOps and API Tools : IIS, Git, Docker, OpenShift, Kubernetes, Azure DevOps, Swagger, Postman.
Cloud and Security Tools : GCP, Hetzner, AWS, Azure Cloud, SQL Server, Linux (Configuring and Managing).
Others : ETL, Data Modeling, Agile (Scrum/Kanban), MongoDB, ClickHouse, Neo4J, Grafana, ZennoPoster, Flutter, Vapor, Fair Data Point.

PROFESSIONAL EXPERIENCE

Chief Technical Officer | *Duchenne Data Foundation* October 2021 – Present
- Building text mining algorithms for clinical trials labeling.
- Creating and implementing a tool to FAIR-ify datasets based on medical ontologies.
- Building custom extensions for CKAN
- Developing a Knowledge Graph for PubMed articles.
- Developing a tool that sorts clinical trials by their gene mutation.

Software Engineer | *XPLN GmbH* September 2020 – Present
- Building advanced scrapers (crawlers) for the biggest ecommerce websites & brands in Europe (Geizhals, ASOS, CDISCOUNT, etc..)
- Implementing captcha bypass scripts for Friendly Captcha, hCaptcha and reCAPTCHA.
- Building custom scripts and databases for specific metrics (Grafana).

Scientific Researcher Trainee | *Technical University of Moldova* December 2024 – Present
- Optimization of food processing technologies in the context of the circular bioeconomy and climate change.

Golang Backend Engineer | *ERAKULIS* February 2025 – Present
- Optimizing server-side components of web applications.
- Developing complex systems and databases.
- Ensuring the scalability of applications, collaborating with front-end developers to create the best user experience.
- Ensuring optimal performance, quality and responsiveness of applications.

EDUCATION

Technical University of Moldova	MS in Informational Security Moldova	September 2023 – January 2025
Hoschule Hannover	Business Administration course Germany	September 2019 – March 2020
Saxion University	BS in Computer Science and Engineering The Netherlands	September 2018 – August 2022

PROJECTS

Website(s) Crawling | MongoDB, Java, Groovy, ClickHouse, Kafka, Hazelcast September 2020 – September 2023
- Crawling data from ecommerce websites and performing analytics.

BIND October 2021 – June 2024
- Validated clinical assessment tool to be adopted in the EU clinics when addressing the CNS comorbidities in DMD and BMD.

MAGIC September 2023 – Present
- The MAGIC project employs a multidisciplinary approach that combines expertise in genetics, bioengineering, and advanced preclinical translation. It leverages state-of-the-art technologies, including microfabrication, microfluidics, and human stem cell differentiation, to create precise disease models and therapeutic vectors. These vectors are designed to express therapeutic genes specifically in muscle cells, reducing the risk of immune responses.

Duchenne Data Repository | CKAN, Django, Python, Microservices, Redis, Solr, PostgreSQL October 2021 – Present
- A unified data repository for dystrophinopathies - *Project Description, Repository's website*

RESEARCH AND PUBLICATIONS

FAIRification and semantic modelling for Duchenne and Becker Muscular Dystrophy rare diseases.
Nutritional Quality of Bread and Bakery Products: Case Study: Republic of Moldova