

# Arseniy Gurin

## Profile

Arseniy is a software developer and data engineer. He has developed and deployed solutions in the business intelligence, data analysis and data migration fields. Arseniy has integrated custom management information systems for numerous clients. Successfully completed projects include client portfolio evaluation dashboards, credit risk assessment with machine learning techniques, data collection and data health checks and database migration. Recently, he has started to apply his skills to the international development sector by implementing web-based M&E solutions, automating processes during data collection, building web-based data dissemination tools and developing tools for survey data quality assurance.

## Professional Experience

2020 to date      RowSquared  
*Co-Founder*

- Data analyst
- Data architect
- Developer
- System administrator

2012 to date      StormCorp (Switzerland)  
*Associate*

- SQL Developer, DBA
- Integration architect
- Data analyst
- Data scientist
- Developer
- Project Manager

## Education

2009 – 2012      Università Sapienza (Italy)  
MS Mathematics

2006 - 2009      Università Sapienza (Italy)  
BA Mathematics

## Languages

Russian (Native), Italian and English (Fluent), French (Very good), Spanish and German (Basic)

## Countries of Work Experience

Italy, Switzerland, Russia, Germany

## Skills and Software

Programming: Javascript, Julia, LaTeX, Python, SQL.

Tools: NCreport, Power Bi, QlickView, Storm Bi, Tableau.

Databases: IBM DB2, IBM iSeries, Microsoft SQL Server, MongoDB, MySQL, Oracle, PosgreSQL, SQLite.

Cloud: AWS, Azure Cloud.

## Selected Project Experience

Project	<b>COVID-19 Food Market Resilience Surveys</b>
Client	Global Alliance for Nutrition (GAIN)
Year	2020 - 2021
Country	Bangladesh, Ethiopia, Kenya, Nigeria, Tanzania
Details	GAIN is conducting high frequency surveys in five countries with consumers and vendors to assess the physical state, functioning and resilience of food markets and market actors under COVID-19. RowSquared is supporting GAIN in the management and quality control of the data collection firms, the instrument development and data analysis. The data is collected using Kobo Toolkit. RowSquared has developed data pipelines and semi-automatic reports that allow rapid assessment and dissemination of the incoming data.
Role	Data Manager - Data extraction, data pipeline, data visualization.

Project	<b>M&amp;E web application</b>
Client	Inter-American Development Bank
Year	2020 - 2021
Country	Regional, Caribbean
Details	The client requested a web based application for monitoring and evaluation of the Compete Caribbean program. The target was to make data more accessible to both key staff as well as the donors. An application was developed which allowed data to be entered, stored and viewed in cloud storage. A set of KPIs was defined and calculated. Dashboards were developed for displaying progress at project and indicator level.
Role	Data architect, developer - Data ETL, javascript developer, data visualization

Project	<b>Research on data quantization techniques for AI</b>
Client	Personal project in collaboration with Prof. Sergey Shumsky
Year	2020
Country	Russia
Details	The research focused on finding the best data quantization techniques for possible future implementation in other projects. Tested quantization algorithms were taken from selected research papers. The test concerned the speed of encoding/decoding data from different datasets and a number of standard algorithms were run on

	quantized data to identify weak and strong points of each quantization algorithm. The task required to program highly efficient algorithms using Python and C languages with focus on using BLAS and LAPACK libraries.
Role	Developer – Python/C developer, data scientist

Project	<b>Population and Housing Census in Kiribati and Vanuatu</b>
Client	Statistics for Development Division of the Pacific Community
Year	2020
Country	Kiribati and Vanuatu
Details	The census surveys interviewed all households in both countries on detailed household, demographic, and socio-economic characteristics, including labor, fertility, and health. In total, 80,000 observations within three weeks were captured. The census was implemented using Survey Solutions CAPI software. A data quality monitoring tool and dashboard were built that linked to Survey Solutions and provided local statistical offices with the ability to monitor and manage collected data in near real time.
Role	Adviser – Advice on data exportation, API integration, data pipelines and dashboard development

Project	<b>Construction cost analysis</b>
Client	Private sector
Year	2020
Country	Russia
Details	A construction company was facing the issue of being unaware of exactly how much money was being spent on a project at any moment. Data was scattered across multiple data sources and the client lacked analytical tools to gain useful information from those. A customized MIS was developed and integrated which allowed for the data sources to be consolidated in just a few dashboards.
Role	Developer - Data ETL, data architect, data visualization

Project	<b>Debt analysis and debtor portrait</b>
Client	Private sector
Year	2020
Country	Russia
Details	A company providing housing and communal services asked for a set of dashboards to work with debtors and visualize financial KPIs. The target was to analyze the debt structure in order to create a debtor portrait. This in turn allowed the company to recognize early patterns that lead to a client's insolvency and take preemptive measures.
Role	Developer - SQL developer, data visualization

Project	<b>Bank database migration</b>
Client	Private sector

Year	2018
Country	Switzerland
Details	The client switched to a new banking system but due to financial regulations had to keep older data available for access for 10 more years. The request was to migrate the database and verify the integrity of the data.
Role	Project manager - Data ETL, data quality assurance

Project	<b>Batch consolidated reporting</b>
Client	Private sector
Year	2015
Country	Switzerland
Details	The client realized that a lot of human resources were diverted towards quarterly report generation, resulting in money loss. The request was to implement an automated batch reporting system that required minimum intervention to operate and would provide all the necessary reports for all levels of management.
Role	Solutions Expert – Advising on the instrument development and data management set-up, conducting training of key personnel.

Project	<b>Data visualization and verification during banking system migration</b>
Client	Private sector
Year	2014
Country	Switzerland
Details	A tool was developed to support a client in migrating from one banking system to another, by visualizing the data in the old system, verifying migrated data and identifying errors.
Role	Developer - SQL developer, data visualization

Project	<b>MIS for the Olympic banking system</b>
Client	Private sector
Year	2012 - 2019
Country	Switzerland
Details	Olympic is a frequently used banking system developed by ERI.. A comprehensive MIS was developed that links into the Olympic SQL database and complements its functionality with a range of analytical tools, including client overview with consolidated financial KPI, various types of risk calculation, asset management dashboards, profitability analysis, asset price history visualization and forecast, client classification based on AI and more.
Role	At various times: developer, data analyst, project manager - Data ETL, SQL developer, database administrator, data warehousing, python developer, javascript developer, data scientist, machine learning, data analyst, data visualization, data quality assurance