Sergii Semenchuk

Senior Platform Engineer

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Summary

With over 20 years in technology, I bring a deep background in data engineering to my current role as a Senior Platform Engineer. I specialize in designing and automating cutting-edge cloud platforms, with extensive experience building scalable, containerized ETL pipelines on AWS and leading large-scale data migrations from on-premises systems. My expertise in Go, Python, Kubernetes, and Terraform enables me to create robust, observable systems and CI/CD pipelines that bridge the gap between modern platform infrastructure and data-intensive applications.

Experience

Senior Platform Engineer

Mott MacDonald | `March 2025 – Present` *Environment: Azure, AKS, Terraform, Go, Docker, Linux, Flux CD, GitHub Actions, Bash*

- Engineered a Kubernetes authorization operator in Go to manage granular access control for multi-tenant workspaces.
- Designed and implemented the observability stack using Prometheus, Victoria Metrics, and Grafana, improving platform monitoring and incident response.
- Automated the provisioning of secure Azure PostgreSQL instances and Blob Storage with private links using Terraform.
- Built integrations with external GraphQL and REST APIs to enhance platform capabilities.
- Developed and maintained CI/CD pipelines using GitHub Actions for automated, reliable deployments to AKS.

IT Developer - Productivity and Project Application Engineer

Mott MacDonald | `August 2023 – March 2025` *Environment: Azure, AKS, Terraform, Go, Docker, Linux, Bash*

- Contributed to the core development of the "Moata Workspaces" platform engineering project.
- Authored custom GitHub Actions to automate the deployment of diverse applications (Plotly/Dash, Streamlit, R Shiny, .NET, Python) to AKS.
- Managed application deployments and configurations using GitOps principles with Flux CD.

Data Engineer

LvivSoft | February 2018 – August 2023 *Environment: AWS, MS SQL Server, Redshift, Docker, Linux, Bash, Python, Matillion*

- Designed and implemented scalable, containerized ETL pipelines using Python and Bash, processing large volumes of data on AWS ECS.
- Migrated over 100 legacy SQL Server Agent jobs to containerized ETL solutions, improving reliability and maintainability.
- Led the migration of on-premises databases to AWS RDS, ensuring minimal downtime.
- Managed and optimized a production environment of 100+ Matillion ETL jobs for Redshift.
- Trained the engineering team on Git, Docker, and modern SDLC practices, facilitating the transition to a Linux-based development environment.

C# Full Stack Developer

Kapsnet BV | October 2009 – February 2018 *Environment: C#, MS SQL Server, T-SQL, ASP.NET MVC 3*

- Developed and supported over 150 e-commerce websites, designing the database architecture and backend services.
- Engineered data exchange systems between websites and external suppliers.
- Implemented and maintained custom CI/CD pipelines for automated builds and deployments.
- Optimized complex T-SQL queries, improving application performance and response times.

BI Developer, Team Lead

Conscensia Ukraine | `February 2007 – October 2009` *Environment: SAS 9.1.3, DI Studio, Enterprise Guide, Flex Builder 3.0*

- Led a team of 6 developers in an Agile environment to build a Data Warehouse for a major Danish bank.
- Developed logical and physical data models and implemented ETL processes using SAS DI Studio.
- Created dashboards and reports with SAS Web Report Studio and Flex for business intelligence.

Head of IT Department / Data Engineer

Lviv State Tax Administration | `May 2003 – February 2007` *Environment: Oracle 9i, PL/SQL, Apache, PHP, Delphi*

- Managed the database server, including performance tuning, capacity planning, and backup strategies.
- Developed web applications and custom reports to support tax calculation and data exchange.
- Led a team of 3 IT specialists responsible for infrastructure and application support.

Education

Ivan Franko National University of Lviv, Ukraine (1998 – 2003)

- *Department of Applied Mathematics and Informatics*

SAS Institute, Denmark (2007)

- *Certified SAS Base and Advanced Programmer*

Technical Skills

- **Cloud:** AWS (Redshift, RDS, ECS, Lambda, S3), Azure (AKS, Blob Storage, Azure DB for PostgreSQL)
- **Languages:** Go, Python, C#, SQL, PL/SQL, Bash
- **DevOps & CI/CD:** Docker, Kubernetes, Terraform, GitHub Actions, Jenkins, Flux CD
- **Databases:** MS SQL Server, Redshift, Oracle, PostgreSQL, Snowflake
- **Tools:** Git, VS Code, DBeaver, Jira, Confluence, Postman, Visual Studio