Novica Nakov

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Experienced data engineering and technology executive skilled in architecting and implementing modern data platforms, data products, and automation pipelines. Strong background in managing cross-functional teams, advising on data strategy, and delivering actionable insights through robust, scalable solutions. Committed to free software principles and continuous learning.

WORK EXPERIENCE

Senior Data Engineer

Norwegian Veterinary Institute - [September 2023 - Present]

- Participated in development of a data platform based on Azure Databricks, using Terraform and Azure DevOps.
- Built ELT pipelines to ingest APIs and other sources on Databricks using PySpark and Unity Catalog.
- Led Posit Team on-boarding for 15–20 people.
- Migrated dashboards and reports to new infrastructure.
- Partnered with communications department to build a data pipeline for presenting data on the web.
- Provided training for the team of researchers and updated documentation frequently.

Founder & Data Consultant

Discindo DOO - Skopje [January 2019 - August 2023]

Founded and ran a boutique data consultancy, delivering end-to-end data solutions while managing client relationships, project execution, and operations.

- Built ETL pipelines to migrate legacy data into modern cloud platforms, enabling multi-user access and real-time analytics.
- Advised local government on open data strategy and developed a tool to publish municipal budget data for public access.
- Created a data pipeline for an environmental NGO to run climate models directly on live API data.
- Provided data science consulting for a U.S. beverage company, improving logistics through custom analytics solutions.
- Built Google Analytics dashboards to help clients understand user behavior and improve campaign performance.

Chief Technology Officer (CTO)

TZS AD - Skopje [6 years in CTO role, November 2005 - November 2022]

Progressed from entry-level to executive leadership over a 17-year tenure.

- Led a full digital transformation of the company, replacing paper-based workflows with modern ERP systems to streamline operations and enable scale.
- Directed the implementation of a new ERP platform, including vendor selection, data migration, documentation, and training of cross-functional teams.
- Built and managed a finance team of 5–6 people to operate new digital processes, dramatically improving efficiency and reducing manual work.
- Expanded the company's service offerings to include outsourced finance and accounting services, enabled by the new ERP capabilities.

ERP Implementation Consultant (Part-Time)

IBORN.NET DOO - Skopje [January 2013 - August 2023]

- Led the replacement of a legacy ERP system as a part-time consultant, modernizing core finance and operations workflows.
- Implemented, configured, and customized the new ERP, migrated data, created tailored documentation, and trained staff to ensure seamless adoption.
- Improved financial reporting speed and accuracy, reducing time to generate VAT returns, annual statements, and management reports from hours or days to minutes.
- Advised leadership on finance and operations, ensuring system setup supported compliance, automation, and real-time decision-making.

ADDITIONAL EXPERIENCE

- Active member of the Macedonian Free Software community and NGO since its inception, contributing to community organizing, project management, public debates, national policy drafting on Free Software, and advising on e-Governance initiatives using Free/Open Source Software.
- Long-term contributor to Free Software projects, including Mozilla Localization and R packages.
- Maintainer of The Carpentries SQL lesson.
- Mentor at the Data Science Learning Community.

EDUCATION

University of Glasgow - Master of Research Human Rights and International Politics, (Chevening Award)
September 2015 - October 2016, Glasgow, UK

Ss. Cyril and Methodius University in Skopje - MA in International relations November 2010 – November 2012, Skopje, North Macedonia

Ss. Cyril and Methodius University in Skopje - B.Sc. in Economics
October 1999 - September 2005, Skopje, North Macedonia

TECHNICAL SKILLS

Python: Pandas, NumPy, Matplotlib, Seaborn, dlt. R: Tidyverse, Tidymodels, Shiny, golem, data.table. SQL: PostegreSQL, duckdb, dbt, SQLMesh. Databricks: SQL, PySpark, ELT, Delta Lake, Unity Catalog. Linux, Bash, Git, GitHub Actions, Docker, Terraform, AWS EC2, AWS S3, AWS Glue.

CERTIFICATES

- AWS Certified Solutions Architect – Associate
- Databricks Certified Data Engineer Associate
- Microsoft Certified: Azure Fundamentals
- dbt Fundamentals
- Carpentries Certified Instructor