

# Alex K.

## Senior Data Engineer

### SUMMARY

- Senior Data Engineer with a strong technology core background in companies focused on data collection, management, and analysis. - Proficient in SQL, NoSQL, Python, Pyspark, Oracle PL/SQL, Microsoft T-SQL, and Perl/Bash. - Experienced in working with AWS stack (Redshift, Aurora, PostgreSQL, Lambda, S3, Glue, Terraform, CodePipeline) and GCP stack (BigQuery, Dataflow, Dataproc, Pub/Sub, Data Studio, Terraform, Cloud Build). - Skilled in working with RDBMS such as Oracle, MySQL, PostgreSQL, MsSQL, and DB2. - Familiar with Big Data technologies like AWS Redshift, GCP BigQuery, MongoDB, Apache Hadoop, AWS DynamoDB, and Neo4j. - Proficient in ETL tools such as Talend Data Integration, Informatica, Oracle Data Integrator (ODI), IBM Datastage, and Apache Airflow. - Experienced in using Git, Bitbucket, SVN, and Terraform for version control and infrastructure management. - Holds a Master's degree in Environmental Engineering and has several years of experience in the field. - Has worked on various projects as a data engineer, including operational data warehousing, data integration for crypto wallets/De-Fi, cloud data hub architecture, data lake migration, GDPR reporting, CRM migration, and legacy data warehouse migration. - Strong expertise in designing and developing ETL processes, performance tuning, troubleshooting, and providing technical consulting to business users. - Familiar with agile methodologies and has experience working in agile environments. - Has experience with Oracle, Microsoft SQL Server, and MongoDB databases. - Has worked in various industries including financial services, automotive, marketing, and gaming. - Advanced English - Available in 4 weeks after approval for the project

### TECHNICAL SKILLS

<b>Main Technical Skills</b>	AWS, GCP
<b>Programming Languages</b>	Python
<b>Python Libraries and Tools</b>	PySpark
<b>Data Analysis and Visualization Technologies</b>	Apache Airflow
<b>Databases &amp; Management Systems / ORM</b>	Apache Hadoop, AWS DynamoDB, AWS Redshift, Data Lake, IBM DB2, Microsoft SQL Server, MongoDB, MySQL, Neo4j, NoSQL, Oracle Database, PL/SQL, PostgreSQL, RDBMS, SQL, T-SQL
<b>Cloud Platforms, Services &amp; Computing</b>	AWS, GCP, Informatica
<b>Amazon Web Services</b>	AWS Aurora, AWS CodePipeline, AWS DynamoDB, AWS Glue, AWS Lambda, AWS Redshift, AWS S3
<b>Google Cloud Platform</b>	Dataflow, Dataproc, Google BigQuery, Google Data Studio



<b>Scripting and Command Line Interfaces</b>	Bash, Perl
<b>Version Control</b>	BitBucket, Git, SVN
<b>Methodologies, Paradigms and Patterns</b>	Publish/Subscribe Architectural Pattern
<b>Virtualization, Containers and Orchestration</b>	Terraform
<b>Other Technical Skills</b>	Financial Services

## WORK EXPERIENCE

### Senior Data Engineer, NY, USA

**Duration:** 09.2022 - present

**Summary:** Operational DWH

**Responsibilities:** Architect and implement the financial datasets into the Operation Data warehouse using a Snowflake architecture approach

**Technologies:** GCP infrastructure: VM, Storage, Big Query, Cloud SQL; Talend Cloud Data integration: modelling, DWH architecture

### Senior Data Engineer, Ta'Xbiex, Malta

**Duration:** 09.2021 – 09-2022

**Summary:** Crypto Wallet / De-Fi

**Responsibilities:** Architect and develop the data integration framework for the IPFS data using a caching mechanism in Neo4j; Migrate the application data out of BFDB (Graph database) into the newly build Neo4j solution; Develop an ETL pipeline in AWS S3, Lambda, and Python; Architect and implement a new reporting Data Warehouse (Kimball) solution in AWS Aurora; Integrate data out of AWS DynamoDB and into Neo4j and Aurora DWH

**Technologies:** Neo4j, AWS S3, Lambda, Python, AWS Aurora, AWS DynamoDB

### Senior Data Engineer, Accenture, Romania

**Duration:** 04.2021 – 09.2021

**Summary:** Cloud Data Hub – Core architecture team

**Responsibilities:** Develop AWS Glue + pyspark ingestion blueprints that become the framework for all data engineering teams; Architect a new file ingest dockerized blueprint: terraform -> SFTP -> S3 -> Glue/pyspark -> Target; Expand the Analytics blueprints: MongoDB, pyspark, terraform, docker

**Technologies:** AWS Glue, pyspark, terraform, MongoDB, Docker

### Senior Data Engineer, France

**Duration:** 04.2020 – 04.2021

**Summary:** Data Lake

**Responsibilities:** Develop data ingestion pipelines using pyspark, Dataproc, Cloud Storage, BigQuery, Airflow, Cloud Build; Migrate the existing Data Lake from Apache Hadoop to GCP using Dataproc, pyspark, and BigQuery

**Technologies:** pyspark, Dataproc, Cloud Storage, BigQuery, Airflow, Cloud Build



## Senior Data Engineer, Munich, Germany

**Duration:** 04.2018 - 04.2020

**Summary:** DWH Migration & BAU

**Responsibilities:** Migrate the company's EDW (data vault architecture) ETL processes from Talend into Informatica Power Center 10; Maintain and document all existing Talend ETL pipelines until they were migrated and decommissioned; QA the newly migrated ETL pipelines in Informatica Data Quality; BAU activities for the overnight ETL processing in both Talend and Informatica

**Technologies:** Informatica Power Center, Talend, Informatica Data Quality

## Senior Data Engineer, Leverkusen, Germany

**Duration:** 10.2017 – 04.2018

**Summary:** GDPR Neo4j (graph) reporting

**Responsibilities:** Talend Data Integration ETL development that defines the OWL 2 RDF ontology of the graph data model (Neo4j) which will help for the GDPR queries; develop cypher statements in order to create and establish the supplied ontology and graph structure; dynamic data processing from various systems (RDBMS, Apache Hadoop, Flat files, JSON, XML)

**Technologies:** Talend Data Integration, Neo4j, RDBMS, Apache Hadoop

## Senior Data Engineer, Nuremberg, Germany

**Duration:** 04.2017 – 10.2017

**Summary:** CRM Migration

**Responsibilities:** Coordinate a small team of 2 developers (myself included) and 1 QA for the following 2 projects: Extracting CRM attributes for SUN analysis from the new CRM solution; Talend Data Integration development of the customer migration and data business validation processes due to the replacement of the legacy CRM

**Technologies:** Talend Data Integration

## Senior Data warehouse developer, Cluj-Napoca, Romania

**Duration:** 11.2016 – 04.2017

**Summary:** Legacy DWH to Data Lake migration

**Responsibilities:** IDP: migrating 2 legacy DWH (Oracle and MySQL) into a new AWS Redshift Data Lake; Talend Data Integration ETL development for the DWH merger using a metadata-driven ETL engine; python development for the IDP (integrated data platform) CRM milestones

**Technologies:** Talend Data Integration, AWS Redshift, Python

## Senior ETL developer, Phoenix, AZ, US

**Duration:** 07.2015 – 11.2016

**Summary:** Mainframe migration and DWH Migration

**Responsibilities:** ETL migration & Pentaho data integration (PDI) to Oracle Data Integrator (ODI 11g) for the DWH processes: Design a new DWH snowflake model as the main DataHub for across the company; IBM DB2 ERP OLTP dataset normalization; PDI legacy ETL processes support (BAU); Historical reporting (SCD type 2 and Snapshot Facts)

**Technologies:** Pentaho Data Integration, Oracle Data Integrator (ODI 11g), IBM DB2

## Senior Data Warehouse Consultant, Zurich, Switzerland

**Duration:** 2014 - 2015

**Summary:** Senior Data Warehouse Consultant

**Responsibilities:** Design & develop ETL & ELT processes using PL/SQL; Performance tuning;



Testing new releases in DEV and UAT environments; Preparation of release packages for Production; Answering Ad-Hoc queries and providing technical know-how for the business users

**Technologies:** PL/SQL

## **Senior Data Warehouse Developer, Gibraltar**

**Duration:** 2013 - 2014

**Summary:** Senior Data Warehouse Developer

**Responsibilities:** Developed ETL & ELT processes using Oracle ODI using the Kimball methodology; Designed and developed objects using Oracle Warehouse Builder 10g; ETL development using Oracle Data Integrator (ODI) and Microsoft SSIS; Development and BAU for Microsoft OLAP Cubes (MDX queries) and Microsoft SSAS Tabular

**Technologies:** Oracle ODI, Oracle Warehouse Builder 10g, Microsoft SSIS, Microsoft SSAS

## **Senior Data Warehouse Developer, Cluj-Napoca, Romania**

**Duration:** 2012 - 2013

**Summary:** Senior Data Warehouse Developer

**Responsibilities:** Design & develop new business functionalities in an agile environment; Develop, monitor and maintain warehouse critical alerts and processes; Write and maintain functional and technical specifications; Monitor, optimize and troubleshoot database and cube performance

**Technologies:** Oracle ODI, Oracle Warehouse Builder 10g

## **Database Developer, Cluj-Napoca, Romania**

**Duration:** 2011 - 2012

**Summary:** Database Developer

**Responsibilities:** Design & develop new ETL processes and integrate them into the existing model using OWB 10g; Develop stored procedures using the ORM method, which are called from .Net by the AR module; Develop business reports in an Oracle Applications 11i environment, using Oracle Reports 6i; Develop ETL/ELT processes in OWB and Microsoft SSIS

**Technologies:** OWB 10g, Microsoft SSIS

## **Oracle DBA, Timisoara, Romania**

**Duration:** 2010 - 2011

**Summary:** Oracle DBA

**Responsibilities:** Database administration on different versions: 8i, 9i, 10g, 11g, 11R2; Design and document existing database architecture; Provide periodically On-Call support for critical situations within the SLA response & resolve time; Implement and use various methods of connectivity and tunneling through the VPN; Apply Oracle CPU Updates on a regular basis, in accordance with their release dates

**Technologies:** Oracle DB

## **Junior Database Developer, Oradea, Romania**

**Duration:** 2009 - 2010

**Summary:** Junior Database Developer

**Responsibilities:** Develop Functions, Triggers, Stored Procedures, Indexes, and Views; Microsoft SSIS - ETL development; Data management and architecture of all the DB servers; Monitor the replication status of our distribution database and to all our subscribed databases; Define and implement administrative procedures for billing endorsement, cash books, etc.

**Technologies:** Microsoft SSIS



## **Junior Database Developer, Oradea, Romania**

**Duration:** 2008 - 2009

**Summary:** Junior Database Developer

**Responsibilities:** OLTP - ETL development using Microsoft SSIS and SqlServer Transact-SQL; Developed BI reports using Microsoft SSRS; Ensure that services under your responsibility are delivered according to the Service description; Data planning, development, deployment and administration; Ensure components supported are maintained, optimized and used effectively

**Technologies:** Microsoft SSIS, Microsoft SSRS

## **EDUCATION**

- **University of Oradea**  
Master's degree Environmental Engineering  
2009 - 2012
- **University of Oradea**  
Graduate's degree Environmental Protection  
2005 - 2009
- **High School "Lucian Blaga"**  
Information Technology  
2001 - 2005

