

Jon Tavernier

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Summary

I am an IT professional who enjoys working in a variety of areas, most notably these:

- Designing, building, documenting, and implementing scalable analytical data solutions and pipelines.
- Extracting, integrating, and adding value to terabytes of complex data from internal and external sources.
- Enhancing existing systems, exploring technology, and applying new tools to difficult problems.

Experience

Raise Marketplace January 2017 – Present

Senior Data Warehouse Developer, Data Engineering Team

- Partner with Data Scientists and Data Analysts to better understand business needs and data in order to develop easier-to-use, integrated data sets particularly those focused on knowing our supply, demand, purchases, buyers, sellers, web and mobile sessions, transactional and campaign email messages, etc.
- Helped replace a legacy data warehouse solution by designing, developing, and implementing a new data warehouse in Google BigQuery. This effort included the conceptual, logical, and physical designs of denormalized tables, which drive most of our self-serve analytical capabilities in Looker.
- Acquire and integrate data from companies such as Adjust, Desk.com, Salesforce, Algolia, Google, Firebase, Sailthru, Linkshare, and Promoter by interacting with their REST APIs, batch exports, etc.
- Develop DAGs in Apache Airflow and Python to extract, load, and transform batch and streaming data.
- Investigate production issues such as zombie processes spawned by Docker containers in Kubernetes, stuck Apache Airflow DAGs, missing vendor data, data quality concerns, slow queries, high CPU usage, etc.
- Identify business and technical needs, short-list solutions, and create proof-of-concepts for technologies.
- Participate in the Agile process including sprint planning, backlog refinement, and daily standups.
- Technical environment: Google BigQuery, SQL, Docker, Kubernetes, Helm, Jenkins, Apache Airflow 1.8, Python 3.6, bash shell scripting, git, GitHub, Slack, Apache Kafka, MySQL 5.6, PostgreSQL 9.6, Amazon Web Services (AWS), Google Cloud Platform (GCP), Jira, Clubhouse, and Slack amongst others.

Allscripts April 2016 – January 2017

Expert Software Engineer, Care Management & Care Director Team

- Lead and supported the Allscripts Care Management and Care Director SQL Server data warehouse environments, its customers, real-time reporting, analytical queries, and data loading processes.
- Collaborated with internal Business Analysts and external customers to define requirements for data products such as data marts, SQL Server Reporting Services reports, and data extracts.
- Investigated data bugs, proposed workarounds, prioritized fixes, and developed permanent solutions.
- Developed utilities in Python and C# to aid troubleshooting efforts and reduce development time

Networked Insights January 2015 – April 2016

Senior Data Engineer, Architecture Team

- Oversaw our Pivotal Greenplum data warehouse environment, a massively parallel processing (MPP) shared-nothing database technology, including its storage, performance, and availability.
- Designed, built, loaded, and maintained de-normalized, distributed, and partitioned data structures.
- Enhanced and created over 20 PL/pgSQL analytical functions used by our customer-facing web application.
- Aligned team deployment process with that used and supported by other groups within the company.

- Created Google BigQuery ETL logic for incrementally extracting data from terabytes of JSON documents, transforming it into smaller relational data sets, and then loading the results into append-only tables.
- Investigated technologies such as AWS Redshift, Azure Data Warehouse, ScaleDB, MySQL, and PostgreSQL.

Northwestern University: Northwestern Medicine EDW April 2009 – January 2015

Chief Data Architect and Manager of Source System Loads July 2012 – January 2015

- Managed the ETL processes that acquired data from over 100 source systems representing dozens of storage technologies into the EDW environment, which required frequent collaboration with other teams.
- Planned and developed data structures in a 20+ terabyte Microsoft SQL Server 2012 environment aimed at integrating and de-duplicating data from dozens of clinical applications such as Epic, Cerner, and Athena.
- Created, researched, and encouraged best practices in information architecture, SQL Server Integration Services (SSIS) ETL, SQL query optimization, data materialization, design reviews, and team processes.
- Interviewed and evaluated candidates for Data Architect, Data Warehousing Specialist, and Power Users.
- Managed the migration of 157 SQL Server Agent jobs to a new server and established owners for all jobs

Data Architect April 2009 – June 2012

- Developed a Cerner inpatient vitals data mart standardizing 100+ million rows of data over ten years.
- Coded SQL Server CLR C# functions for medians, regular expression matches, and string aggregation.
- Extracted, loaded, and transformed data using SSIS from many sources stored in a variety of databases such as Oracle, SQL Server, PostgreSQL, Informix, and files such as XML, CSV, Access, Excel, and text.

Northwestern Medicine: Northwestern Medical Group January 2007 – April 2009

Application Programmer Analyst II, Clinical Information Systems

- Acted as liaison to the Division of Cardiology's physicians, nurses, and professional staff incorporating business and clinical requirements into the Epic electronic medical record (EMR) and other applications.
- Extended functionality of the Epic EMR by proposing, designing, and coding 55+ projects in Intersystems Cache' (MUMPS) many of which improved the integration between Epic and other applications.
- Managed Cardiology's echocardiogram application (Philips Xcelera) including its day-to-day operation, upgrades, enhancements, test environment, and vendor relationship including contract reviews.

Epic Systems Corporation June 2002 to June 2006

Technical Services, MyChart Application

- Supported large health care organizations' (e.g. Fairview, Kaiser Permanente) IT and business office professional staff with installations of MyChart, Epic's patient portal web application.
- Identified, captured, and analyzed workflow business requirements used to develop specifications for technical solutions utilizing Epic Programming Points, Visual Basic, ASP, JavaScript, XML, HTML, and CSS.
- Worked closely with Intersystems Cache, a NoSQL database management system, and Epic Chronicles.
- Reduced the run time of a large batch process to under five hours from over ten hours.

Education and Certifications

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| • Fellow, Association of American Medical Colleges, Information Resources Leadership Institute | 2014 |
| • Business Analyst, Certification, Northwestern University, School of Continuing Studies | 2013 |
| • Computer Information Systems, BS, Indiana University, Kelley School of Business | 2002 |