Michael Ion

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Experience

Data Engineer, **ClearScore** - London, UK – Feb 2020–Present

- **Zendesk metadata ingestion:** End-to-end implementation, testing and deployment of an app that consumes metadata from a Zendesk API and ingests it into a data lake
- **Enhancing "Nested Tracking" gateway:** Enhancing nested data processed in a microservice
- **End-to-end Integration Tests:** Ensuring data sent to API is ingested correctly, BDD with Pytest
- **Airflow workflows:** Adding new spark jobs using airflow operators to extract credit offer data
- **Utilised**: Scala, Python, SQL, Terraform, Spark, Jenkins, AWS: S3, Lambda, Kinesis, Redshift

Software Engineer (Data), **Hive** - London, UK – Jan 2019–Jan 2020

- **CRM Project:** Delivering real-time data pipelines of IoT devices and their usage for CRM / Marketing related purposes; leveraging Kafka Streams and Scala
- **Data Lake:** Ingestion of IoT hub data with Kinesis. ETL and Curation according to business requirements using Scala + Spark/Glue from IoT Hubs into S3 Data Lake. Instantiating needed infrastructure using Terraform modules.
- Automation of batch feeds of usage data on hivehome.com and mobile apps from Adobe Omniture using S3-event triggered Lambdas written in Python, sending monitoring data to Cloudfront.
- Writing CI/CD pipelines for Jenkins, scaling/monitoring K8s instances with kubectl.
- **Utilised**: Scala, Python, SQL, Kafka Streams, Spark, SBT, Jenkins, Kubernetes, Terraform, AWS: S3, Lambda, Kinesis, Athena, Redshift

Data Engineer in Supply Chain, Intern; Amazon, Luxembourg; May 2017–Nov 2017

- **Transfer Tool:** Designed algorithm to pick transfers maximising inventory selection. Written in Python using input from different data sources, the tool was used in production and generated +10 million inventory transfers during the launch of new warehouses in the UK, Italy and Spain.
- **VIP Dashboard:** Created a web-based metrics and data visualisation dashboard with R Shiny, tracking weekly performance of an inventory optimisation model. Added PDF export functionality.
- **Root cause dashboard:** Developed an visual analytics tool that used custom inventory metrics to help identify root causes that have led to badly placed inventory. Used in support rota.
- **Automatisation of processes:** Auto-submitters for inventory transfers to internal sites with Java and Selenium, SQL code generators for recurring queries
- Reporting / SQL queries for quantitative analysis of supply chain systems performance; close collaboration with operations research scientists, business analysts and BI teams
- **Utilised:** Python (Plotly, Dash, Pandas), Redshift, Oracle, Bash, R (+Shiny), HTML/CSS, Java + AWS SDK, PostgreSQL, Selenium, Excel

Education

Technical University of Vienna; Vienna, Austria – MSc in Business Informatics, 2019

- **Master Thesis**: Designing and Evaluating a Recommender System for Board Games
- Published Research Paper at RecSys Conference: https://dl.acm.org/doi/10.1145/3341105.3375780
- *Coursework*: Advanced Software Engineering, Software Testing, Business Intelligence, Econometrics, Simulation, Model-based Decision Support, e-Commerce, Innovation,…

Technical University of Vienna; Vienna, Austria – BSc in Computer Science, 2016

- **Bachelor Thesis**: Communicating Uncertainty in Information Visualisation
- Erasmus Exchange Semester in Lyon, France
- *Coursework*: Software Engineering, Databases, Computer Graphics, Computer Vision, Statistics, Algebra & Discreet Maths, Mathematical Analysis, Data Visualisation, Multimedia Systems,…