Michael Ion

43 Havering Street
E1 0LP
London - UK

+44 7394 110 161
michael.ion@protonmail.com
www.michaelion.io

github.com/mionisation

Experience

Data Engineer, Hive; London, UK – Jan 2019–Present
- **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.
- <u>Utilised</u>: Scala, Python, SQL, Kafka Streams, Spark, SBT, Jenkins, Kubernetes, Terraform, AWS: S3, Lambda, Kinesis, Athena, Redshift

Data Engineer in Supply Chain, Intern; Amazon HQ, 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
- <u>Utilised:</u> 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
- *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,…

Projects
- **Personal Website**: michaelion.io *(for additional information and projects)*
- 1st Place "Open Energy Data Challenge 2017". I created an interactive visualisation with the R-Shiny Framework for comparing the costs of using public transport versus the use of a car.
- **"Report Editor"**: Developed a web-app prototype for a local consultancy in a team of 5 as a joint university project. Creation of custom reports for construction investigations. Java/Spring/AngularJS
- **"Bouncy Blocks"**: A local physics-based multiplayer 3D Game, made in C++ with OpenGL
- **"Pirants"**: Android game that involves defending cupcakes from invaders of ants, Java+Android SDK
- **"ics Merger"**: A small web app for merging calendar files, JS/Html/Css - *icsmerger.com*