

Alexander Dahl

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Experience

- 2021-09 **Data Engineer (Google Cloud)**, *ICA Gruppen*, Stockholm, Sweden.
current
- Part of a small new team that will create ICA's future Machine Learning platform on GCP, using Vertex, Dataflow, Composer, BigQuery as our data-stack
 - Created a devcontainer as a one-stop-shop for Data Science on GCP, meaning new Data Scientists can be up in running by simply pulling a docker image
 - Used Terraform for all infrastructure on GCP, leaning heavily into keeping everything infrastructure as code with no changes done in the UI
 - Collaborated in designing the above-mentioned architecture and processes for ML on GCP
- 2020-08 **Data Engineer (On-prem Hadoop cluster)**, *ICA Gruppen*, Stockholm, Sweden.
2021-08
- Developed machine learning data pipelines for personalized marketing that reaches 4 million ICA customers each week and delivers 500 Million SEK in yearly value
 - Used Spark, Airflow, Python and SQL for the above mentioned pipelines which processed the transaction history of all customers at ICA (100B+ rows)
 - Developed CI/CD pipelines for linting, automatic testing, code quality checks and better release process with Gitlab CI, Jenkins and Ansible
 - Decreased release to production cadence from once a week to several per day through a completely automated CD pipeline
 - Spread knowledge about shell and Linux to my team to the point that they were self-operating regarding basic scripting and Linux tasks
 - Revamped the Onboarding process so new developers were up and running and closing JIRA tickets within a week
- 2018-01 **Database Technology Lab Assistant (TDDD37)**, *Linköping Institute of Technology*.
2019-01
- Taught students about SQL, Database Design, EER-diagrams, Relational Models, Functional Dependencies and Database Normalization

Technologies

Data Eng.	Python, SQL, Airflow, Beam, Spark, Hadoop
DevOps	Docker, Jenkins, Gitlab CI, Drone, Elastic Stack, Grafana
GCP	BigQuery, DataFlow, Composer, Vertex, IAM
IaC	Terraform, Ansible, docker-compose
General	GNU/Linux, Git, bash, Traefik, Agile, Scrum

Education

- Graduated **M.Sc. Computer Science & Industrial Engineering and Management**,
2020-05 *Linköping Institute of Technology*, Linköping, Sweden.
- **Master's thesis:** Used data mining to find an allocation for a picking machine at Apotea AB (an online pharmacy). The allocation yielded a 5% increase in efficiency without any additional costs. Read thesis [here!](#) See the python code [here!](#)
 - **Student Union:** Was Head of IT for [LARM](#), Linköping's largest career fair, in 2018-2019.
 - **Study abroad:** One Erasmus year at Karlsruhe Institute of Technology in Karlsruhe, Germany

Side Projects

- Home Server I have a home server that I am hosting different things on, for example my website dahl.dev. Running several docker containers that all interact with each other in some way, check out a more detailed description [here!](#)
- Web Pipeline I built my own place on the internet (dahl.dev) with Angular, [link to repo](#). To make everything as automatic as possible I have a CD pipeline set up with Docker, github, Drone and Watchtower. Upon each push to master Drone will build a Docker image, push it to dockerhub and then watchtower will pull and deploy it on my server. See a more detailed description [here!](#)
- Monitoring I collect data regarding performance, net speed and ambient temperature/humidity for my Raspberry Pi, push it to TimescaleDB and have a dashboard in Grafana. Link to dashboard: grafana.dahl.dev
- Dashboarding Built a dashboard out of Swedish Higher Education Enrollment stats from 1995-2021, available [here!](#)
- Untitled Cloud Project Building a fully featured web app using Svelte, Cloud SQL, Terraform and a Golang backend hosted on Google Cloud Run. Still in progress

Other

- Checkout my Linux-environment scripts [here!](#)
- Rode a bicycle 10 000km from New York to Costa Rica, [here is a picture of my route!](#)
- I am an Apache Beam contributor by fixing a small path change for a Spotify project, not much but still fun to exist in the git log! [Here is the link to the PR](#)
- I like using emojis 😊