

Alexander Dahl

Master's thesis

Thesis Scope Data Mining and Optimization in a Material Handling context

Description Apotea AB, a Swedish online pharmacy, has bought an A-frame to automatize their central warehouse. Not all articles can be placed in the machine so a selection has to be made. My thesis is about how to make this selection using data mining and optimization to maximize efficiency.

Education

March 17 Industrial Engineering M.Sc. in Logistics, Linköping Institute of Technology,

current Linköping, Sweden.

Combining a Master's degree in Logistics with several advanced Computer Science courses. Expected graduation date is January 2020.

September 14 Industrial Engineering, Karlsruhe Institute of Technology,

August 15 Karlsruhe, Germany.

Erasmus year in Karlsruhe where I also finished my Bachelor's Project.

August 12 Industrial Engineering, Linköping Institute of Technology, Linköping, Sweden.

June 14 Minor in Computer Science and extra courses in German

Experience

Work

January 18 Database Technology Lab Assistant, Linköping Institute of Technology, Linköping.

January 19 I taught 100 students about SQL, Database Design, EER-diagrams, Relational Models and Database Normalization.

October 17 Programming Teacher, Medborgarskolan, Linköping.

December 17 Taught kids aged 7 to 13 about basic programming concepts and guided them into initiating their own projects.

October 15 Science Teacher, Stereterdsskolan, Kållered.

June 16 Worked a school year as a science teacher for grade 6. This experience taught me a valuable lesson in time management and I improved my leadership skills.

August 14 Assistant logistics controller, GLA Air Cargo AB, Gothenburg Aiport.

June 14 Customer service and quality control at a transportation hub at Gothenburg Airport.

Student and Volunteer

June 18 Head of IT of LARM, LinTek, Linköping.

March 19 Head of IT for LARM, the largest career fair in Linköping. Maintained and developed several inherited system as well as creating new ones. Newly developed systems was a mathematically optimal interview scheduling system built with Python and Gurobi, as well as a taxi scheduling system in JavaScript that made sure the taxis were always fully booked to maximize efficiency and minimize CO2 emissions.

September 18 Logistics Project, Region Östergötland, Linköping.

December 19 Worked in a team of five people to help Region Östergötland optimize their inventory stock levels of pharmaceuticals at the University Hospital in Linköping. Data from pharmaceutical dispensing machines was analyzed and our conclusion was that the Region could save 100k+ SEK per ward by simply changing their inventory levels and purchasing routines without lowering their service level. Read here (in Swedish)!

September 17 Data Scientist, Coogl3, Software Engineering course.

December 17 Worked as a data scientist in a 30 person team to deliver a movie recommendation system. The team used an agile approach with cross-functional teams and scrum.

I implemented the recommendation algorithm. Code here!

International Experience

July 19 English Volunteer, Ganbaro Miyagi, Hokkaido, Japan.

I was an English speaking volunteer at a Japanese summer camp to promote cultural exchange. The camp was founded after the 2011 Tohoku earthquake to make the summer better for children affected by the disaster.

June 16 Rode a bicycle 10000km from New York to Costa Rica.

February 17 Got strong legs, a perspective on life and ate a lot of tacos!

Bachelor Project

Title Creating the Contemporary Property Management System of Tomorrow

Abstract Worked in an 8 person team using agile development to research and develop a real summary estate management platform. Read here!

Computer skills

Web Dev. HTML, CSS, Angular, Express, Node.js, Django

Programming Python, Javascript, Java, SQL, Spark, Hadoop, Docker, MongoDB General GNU/Linux, Agile Development, Git, Proxmox, Traefik, MS Office

Languages

Swedish First language Can't say R correctly

English Fluent Occasionally with a southern twang from my weeks in the deep south

German Good knowledge (B2) Good reading and listening comprehension, adequate speaking

Spanish Good enough Survived 5 months in Latin America

Relevant Advanced Courses

Logistics Logistics Analysis, Supply Chain Optimization, Logistics Strategies, Purchasing

Computer Big Data Analytics, Data Mining, Advanced Web Programming, Database Technology Science

Other

Driver's license Swedish B driver's license Forklift license Swedish A+B forklift license