

CECILIA NYBERG

M.Sc. Data Science and AI

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WORK EXPERIENCE

Programmer intern

Ongoing WMS: Warehouse Management System

June 2024 – July 2024 Gothenburg

- Implemented service selection functionality for delivery transport bookings
- Coded in C# and HTML for front- and back-end development and SQL for database connection
- Worked in an Agile environment using GIT for version control

Market analysis

Firework

June 2023 – August 2023 San Mateo, California

- Conducted market analysis for an un-launched B2B e-commerce product
- Performed customer segmentation and analysis to inform product development and marketing strategies

SELECTED PROJECTS

Game Application for Visually Impaired

Bachelor's Thesis, Chalmers University of Technology

Developed and implemented a user-focused accessible application, representing a hand of cards, to facilitate board game playing for people with visual impairments.

Used JavaScript for front-end, Python for Convolutional Neural Network and other back-end functionalities, MondoDB for database operations.

Meta-Learning for Transferability of WACO: Workload-Aware Co-Optimization for a sparse tensor program

Seoul National University

WACO can greatly speed up sparse matrix operations, but suffers from high re-training cost when used on a new hardware. This project integrated Meta-Learning in the training loop for WACO which reduced the amount of data needed for fine-tuning on a new machine.

Multi-class Image Classification of Trees from Bark

Chalmers University of Technology

Developed a CNN model to classify bark images into 12 tree species, achieving an accuracy of 79.8%. An ablation study identified key factors for performance improvement. Additionally, conducted an in-distribution versus out-of-distribution classification by applying unsupervised principal component analysis to image features, successfully distinguishing bark images from coffee bean images with an accuracy of 99.8

COMPETENCES

Machine Learning

Data Processing

Transfer Learning

Statistical Analysis

NLP

LLM

CNN

Bayesian Optimization

Python

Java

C#

JavaScript

SQL

Linux

PyTorch

SIFT

RANSAC

LANGUAGES

Swedish



English



Spanish



Korean



EDUCATION

M.Sc. Data Science and AI

Chalmers University of Technology

September 2023 – Current

Exchange term, Data Science and AI

Seoul National University

September 2024 – Current

Summer Session

University of California, Berkeley

June 2023 – August 2023

B.Sc. Industrial Engineering and Management

Chalmers University of Technology

September 2020 – June 2023

ACHIEVEMENTS



Scholarship for excellent academic performance

Sigrid Rudebecks High School