

SUKRU HAN SAHIN

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EDUCATION

Technical University of Denmark (DTU)

M.Sc. Human-Centered Artificial Intelligence

Lyngby, Denmark

2019–2021

Bogazici University

B.Sc. Industrial Engineering, GPA: 3.18/4.00, Honors Degree

Istanbul, Turkey

2015–2019

- Thesis: “Predicting Conversion Rate of An FMCG Company’s Users for Online Marketing Incentives”
- Erasmus/Exchange: Attended Erasmus Programme in Technical University of Denmark between the dates of January 2018–June 2018

EXPERIENCE

Novo Nordisk

Data Science Intern at Supply Chain Analytics

Bagsværd & Hillerød, Denmark

February 2020–Ongoing

- Process Duration Prediction Project:
 - * **Business Value:** Helping production planning process for minimizing uncertainty during production.
 - * **Description:** Retrieving data from database and wrangling production site data to obtain correct structure of data and visualizing for further understanding and pre-analysis. Creating validation logic to find out data errors and reporting cleaning these errors. Adding features and analyzing enriched data to retrieve valuable insights to make business decisions. Deploying machine learning algorithms in order to predict process duration.
 - * **Used Technologies:** Microsoft SQL, Alteryx, Tableau, Python, Pandas, Plotly, Seaborn, Scikit-Learn
- Optimizing Sourcing Operations Project:
 - * **Business Value:** Minimizing ordering and storage costs of raw materials. Saving up to 35% of costs.
 - * **Description:** Applying mixed integer nonlinear programming model (MINLP) for the optimization of ‘*Lot Size*’ and ‘*Frequency*’ variables of orders. Creating an interface to make optimization user friendly and creating an .exe file in order to make product independent of any programming language. As a result, designing a product for the optimization process of purchasing raw materials.
 - * **Used Technologies:** Python, Object Oriented Programming, Pandas, Pyomo, NLOpt, Tkinter GUI

Data Science Intern at Manufacturing Intelligence

- People Counter Project:
 - * **Business Value:** Automating the people counting in production and reducing cost of employees.
 - * **Description:** For detecting and tracking people in a room, pre-trained model of pose estimation (openpifpaf) is used. To be able to track people behind walls or objects Multi-object Detection & Tracking APIs in OpenCV used. Parameter tuning and model comparison methods are applied to find best model for both of the concepts.
 - * **Used Technologies:** C++, Python, OpenCV, Openpifpaf
- Robot Automation Project:
 - * Automating communication connection among main station, CT Scanner and Robot arms using Python socket. Programming robot and RPA tool to organize work load.

Vodafone

VAS & Messaging Product Management – Discover Attendee

Istanbul, Turkey

Summer 2019

– Competitor Analysis:

- * Analyzing and comparing the product portfolio of competitors regarding corporate marketing products. Developing new product ideas and deciding over implementation, segmentation, pricing strategies.

Procter & Gamble

Data Scientist Intern (Bachelor's Thesis)

Istanbul, Turkey

January 2019–June 2019

– Predicting Conversion Rate of An FMCG Company's Users for Online Marketing Incentives:

- * **Business Value:** User profiles and purchasing intentions are revealed. Costs of incentives are minimized.
- * **Description:** Creating data tables properly in order to apply ML algorithms. Using classification algorithms (Logistic Regression, Random Forest, XGBoost etc.) in order to predict accurately conversion rate of each consumer. Evaluating accuracy parameters (AUC, Balanced Accuracy, Sensitivity) of each algorithm according to different sampling methods and selecting the most efficient algorithm with the most appropriate sampling method and parameters.
- * **Used Technologies:** Python, Scikit-Learn, Matplotlib, Pandas, Seaborn

PricewaterhouseCoopers (PwC)

Consulting Intern

Istanbul, Turkey

November 2018–December 2018

– Bank Card Schemes Project:

- * Increasing the market penetration focusing on specific segments. Analyzing status quo via conducting market research on strategies, behaviors, roles, campaigns, goals and products of competitors and worldwide players with business database and knowledge experts. Constructing and developing strategies upon the outputs of analysis.

Unilever

Supply Chain ULIP Intern

Istanbul, Turkey

Summer 2018

– Digital Supply Chain Transformation Project:

- * Creating “Data Validation Module” via organizing meetings with specialist and consultancy firm. For the “Demand Planning Module”, analyzing Unilever's and its competitors' activity logs for categorizing, matching and comparing synthesized data to obtain more accurate forecasts. Originate, perform analysis for the current process of project for all Supply Chain organization.

Mosek ApS

Optimization Analyst

Copenhagen, Denmark

March 2018–June 2018

– Developing Optimization Models & Testing Software:

- * Developing convex optimization models; Portfolio Optimization and Flow Interdiction problems. Coding developed model in the environment of MOSEK Fusion API using Python. Testing designed model with real data, evaluating results in sense of mathematical modelling solutions.

Mondelez International

Sales Strategy & Operations Intern

Istanbul, Turkey

July 2017–September 2017

– Analysis and Idea Generation:

- * Analyzing Optimal Point of Sales of Oreo according to different market parameters and firm data using Excel. Exploring and eliciting strategies to increase sales of First gums in terms of idea generation. Conducting a market research to crosscheck resolutions. Presenting results to department.

Sampa Automotive Inc.

Product Development Intern in R&D

Samsun, Turkey

January 2017–February 2017

– Testing and Analysis of Products:

- * Responsible intern for the development project of two Truck Trailer parts. Testing parts at MTS Unit (Durability and Endurance Simulation Test) for different parameters. Improving better prescriptions according to laboratory tests and testing at MTS Unit again.

SKILLS

- **Technical Skills:** Python, C++, SQLite, Alteryx, Tableau, MS Office, R, Machine Learning, Deep Learning, Semantic/Sentiment Analysis, Time Series Analysis, Network Analysis
- **Interests:** Strength Training, Taekwon-do (RedBlack Belt), Tennis, Debating

PROJECTS

See full list of projects on github.com/SukruHan

- [Detecting The Odd-One-Out Among Words With Embeddings](#)

Comparing the performance of different word-embedding models in order to detect the outlier within a small group of words.

- Python, Gensim, FastText, SPARQLWrapper, Sklearn, Wembedder

github.com/SukruHan/AdvancedMachineLearning

- [Time Series Analysis for Sales Data](#)

Statistical analysis and Time Series models application on Sales Data. Prediction for next window is created.

- Python, Statsmodels, Pmdarima, Scipy

github.com/SukruHan/Time_Series_Analysis

- [Game of Throne Analysis](#)

Network Analysis, Community Detection is executed for characters and houses of show. Text and Sentiment Analysis is conducted with Twitter data.

- Python, Nltk, Wordcloud, Networkx

github.com/SukruHan/simonpetersen.github.io

- [Predicting Ozone Level](#)

Data exploration, visualization and machine learning models application for LA Ozone data.

LANGUAGES

- **English:** Business Proficiency

– **IELTS:** 7/9

- **Turkish:** Native

- **Danish:** Interested in

- Python, Sklearn, Seaborn, Torch

github.com/SukruHan/Introduction_to_Machine_Learning

- [Deep Learning for Popular Datasets](#)

Various deep learning models (FFNN, CNN, RNN, AutoEncoders, Q-Learning for RL) are practiced for different popular datasets.

- Python, Torch, Math, Scipy

github.com/SukruHan/Deep_Learning

- [COVID-19 Analysis & Comparison with Previous Pandemics](#)

Visualizing virus spreads and effects, Predicting future cases.

- Python, Bokeh, Folium, Geopy, Sklearn,

github.com/SukruHan/SocialDataFinalProject

- [Data Engineering for Airbnb](#)

Using Spark to analyze data obtained from the Airbnb's website. Learning about trends and usage patterns from the data. Then detecting reviews that are the most positive.

- Python, PySpark, Matplotlib, Scipy, Re, Seaborn

github.com/SukruHan/Computational_Tools_for_Data_Science

SCHOLARSHIPS AND AWARDS

- Turkish Educational Foundation - Garring Foundation Scholarship 2019–2021
- Deloitte Educational Foundation Scholarship 2017–2019
- Outstanding Delegate Reward at Model United Nations Competition at Kadir Has University 2016

EXTRACURRICULAR ACTIVITIES

- Member at Young Professionals in Denmark (Representing DTU) 2019–2020
Member of the Young Professionals in Demark. YPD is a career development network for international students. The programme is a leading study and career destination, which promotes Danish business and culture to students
- Leader at Boğaziçi University Consulting (BUCO) 2018–2019
Leading several projects to solve real problems of firms or organizations. Car Leasing firm, Sports Club and Inflight Entertainment firm are among the participants.
- Board Member & Trainer at Bogazici University Management Consulting Committee (BUMCC) 2017–2019
Board Member and Trainer at the committee. Training students about case interviews and consultancy sector and making strategic decisions about the future of the committee.
- Scholar at Deloitte Educational Foundation (DEVAK) 2017–2019
Beside supporting financially, DEVAK provided weekly educational seminars to build scholars as all-rounders.