

Emre Kemal Yurderi

International and Local AI and Tech Competition Winner

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DATA SCIENTIST

Data Analysis | Machine Learning Modelling | Data Visualization

SUMMARY

- Proficient in end-to-end data analysis processes including data exploration, visualization, feature engineering, predictive model building and result interpretation, utilizing analysis tools such as Python, R, SQL, Excel and MicroStrategy.
- Experienced in AI with a proven ability in machine learning and deep learning models to solve complex problems.
- Competent in ETL processes, including creating complex SQL queries, managing workflow steps with Pentaho, and automating scheduling using Jenkins
- Proactively engages in research, with a continuous drive to learn and adapt to new technologies and methods in the field.
- Versed in driving business discussions to align on needs and translating complex technical information for all stakeholders
- Achieved high honors in Artificial Intelligence at Centennial College; holds a MSc in data analytics and a BSc in statistics.

PROFESSIONAL WORK EXPERIENCE

WIMTACH – AI Engineer

Aug. 2023 – Present (Toronto, ON)

Road Optimization by Reinforcement Learning (Continuing Project)

Sep. 2024 – Ongoing

- Designed a custom environment for training agents using reinforcement learning techniques
- Analyzed the spatial and temporal features to identify the key patterns in the dataset
- Utilized intermittent demand forecasting methods along with deep learning models to predict spatiotemporal data
- Created dynamic visualization to show and compare the predictions with the real data
- Researched the reinforcement learning methods for the next phase of the project.

Data Analysis to Reveal Key Features (Completed Project)

Jun. 2024 – Aug 2024

- Preprocessed project datasets, including data cleaning, organizing and feature engineering, to ensure robust analysis.
- Applied both parametric and non-parametric statistical methods to uncover feature correlations.
- Investigated the dataset to identify key features for the prediction model.
- Conducted meetings to effectively communicate statistical findings to non-technical stakeholders, facilitating informed decision-making.

Predicting Sensory Data by ML Algorithms (Completed Project)

Aug. 2023 – May 2024

- Developed a predictive model and achieved 85% accuracy by employing customized approach with the XGBoost.
- Designed the flow of the prediction process and researched eligible methods that can be utilized in the project.
- Managed end-to-end data analysis process including data processing, visualization, feature engineering, model building.
- Fine-tuned an LLM model (Tiny Llama) to generate human readable output using predicted mathematical results.

Predicting The Duration of Process by ML and DL Algorithms (Completed Project)

Dec.2023 – Mar. 2024

- Reduced the error rate by 67% with attention-based encoder-decoder deep learning model.
- Analyzed the project requirements, and cleaned and prepared the distorted dataset for ML and DL processes.
- Established proactive solutions to address data issues and ensure unbiased results.

Logiverse Technology – Data Analyst

Mar. 2022 – Nov. 2022 (Istanbul, Türkiye)

- Collaborated with business stakeholders to translate requirements into effective BI solutions.
- Tailored custom reports utilizing MS SQL, PostgreSQL, and Microsoft MicroStrategy
- Contributed to the adaptation of the database for the MicroStrategy implementation, by testing and data integration.
- Managed ETL processes to transform and migrate data between databases employing SQL, Pentaho, and Jenkins.
- Monitored and maintained the ETL process and client report schedules using Pentaho and Jenkins.
- Enhanced operational processes using Python by identifying patterns and developing a model for optimization.

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Ekol Logistics – Organizational Development Lead

Nov. 2019 – Nov. 2022 (Istanbul, Türkiye)

- Designed HR dashboard in Excel for the vice presidents to present a comprehensive view regarding their teams.
- Analyzed market compensation and benefits reports and created pay scales for the employees in the company.
- Researched title and performance management trends in the market and developed a new title and promotion strategy for 1,000+ white-collar employees.

Allianz Insurance – Reporting and Compensation & Benefits Sr. Specialist

May 2015 – Nov. 2019 (Istanbul, Türkiye)

- Prototyped and maintained an Excel dashboard for C-level management to provide HR-centric insights.
- Prepared and analyzed the HR reports, including compensation and benefits, turnover, recruitment, and more
- Managed yearly reporting process for the HR department with the headquarters in Germany.
- Conducted the yearly salary increase process for 2,500 employees by analyzing market compensation reports.

PROJECTS AND ACHIEVEMENTS

Award: Publishing Outstanding Science Communication Award

Project Name: Predicting The Stages of PDAC: Using Non-Invasive Method

Organization: 2023 STEM Fellowship's International Inter-University Big Data Challenge

Project Description: Aimed at predicting the existence and stages of PDAC disease using non-invasive methods for early detection was conducted. A public dataset containing various biomarkers was analyzed, yielding highly promising results, with an accuracy of 87% for early detection and 70% for PDAC stage prediction.

Award: ICET Department Winner

Project Name: SignSpeak – A Real-time ASL Fingerspelling Translator

Organization: 12th Annual Centennial College Tech Fair

Project Description: Developed a real-time sign language translator for beginners in American Sign Language (ASL) using the Chicago Fingerspelling Dataset. Leveraged Google MediaPipe for hand landmark detection and explored attention-based LSTM model to achieve high accuracy in varied environments. Deployed the model into a user-friendly web application to enhance communication and inclusivity for individuals with hearing disabilities.

EDUCATION

Centennial College – Artificial Intelligence (Advanced Diploma)

Jan. 2023 – Apr. 2024 (Toronto, ON)

4.39/4.5 GPA (High Honors)

MEF University – Data Analytics & Machine Learning (Master's Degree)

Sept. 2020 - Sept. 2021 (Istanbul, Türkiye)

3.77/4.00 GPA.

Dokuz Eylul University – Statistics (Bachelor's Degree)

Sept. 2009 - Jun. 2014 (Izmir, Türkiye)

Related Academic Courses

Advanced Diploma

Deep Learning
NLP & Recommendation Sys.
Cloud Machine Learning
Advanced Databases Concepts
Data Structure and Algorithms

Master's Degree

End-to-End Big Data Analytics
Model Building and Validation
Optimization and Simulation
Marketing Analytics
Advanced Machine Learning

Bachelor's Degree

Multivariate Statistical Analysis
Time Series Analysis
Regression Analysis
Non-parametric Methods
Statistical Programming Languages

NON-TECHNICAL SOFT SKILLS

- Demonstrated ability to solve complex problems with analytical expertise and innovative techniques.
- Strong ability to communicate complex data insights to non-technical stakeholders.
- Collaborative team member with experience working in fast-paced environments.
- Meticulous attention to detail in data analysis, model development, and debugging.
- Eager to learn new skills and stay up to date with industry trends.
- Flexible and able to quickly adjust to new challenges and environments.