
UMUT ZENGIN

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SKILLS

- AI, Data Science & Machine Learning
- Data Science
- Image Processing
- Natural Language Processing (NLP)
- Predictive Modelling
- LLMs
- Python (Scikit-learn, OpenCV, TensorFlow, Pandas, NumPy)
- R
- MATLAB
- SQL
- Statistical Modeling
- Federated Learning
- Optimization
- Stochastic Processing

WEBSITES, PORTFOLIOS, PROFILES

- <https://www.linkedin.com/in/umut-zengin/>
- <https://github.com/umtzngn>
- <https://umtzngn.github.io/>

PROFESSIONAL SUMMARY

I am a Master's student in Electrical and Computer Engineering at the University of Alberta, passionate about developing innovative solutions using artificial intelligence technologies like Large Language Models (LLM), Natural Language Processing (NLP), and Computer Vision.

In my current Data Analyst role, I leverage Python and SQL for data modeling and analysis. My recent experience as a Research Assistant involved developing computer vision projects using Python, OpenCV, and Scikit-learn. I possess a strong foundation in data science from my previous roles, with proficiency in Python, SQL, R, TensorFlow, and C#.

Focused on bridging academic research with practical applications, I am eager to contribute to cutting-edge research in AI, robotics, and system design.

WORK HISTORY

Data Analyst, 2/2025 – Present

Pleasant Solutions– Edmonton, AB

- Queried, cleaned, and analyzed large-scale datasets using SQL and Python (Pandas, NumPy) to support business decisions.

- Applied data mining techniques to identify patterns and trends in customer behavior.
- Developed effective data models and presented analytical findings to stakeholders using visualization tools such as Tableau/Power BI.

Research Assistant, 10/2024 – 05/2025

University of Alberta – Edmonton, AB

- Contributed to a research project focused on pH detection using computer vision techniques.
- Utilized Python and OpenCV to extract HUE color values from digital images of hydrogels that change color in acidic and basic environments.
- Developed and validated machine learning models with Scikit-learn to predict pH levels based on the extracted color data.

Head of Information Technologies, 01/2022 - 09/2022

VASI Group Companies – Istanbul

- Led the development and maintenance of internal data systems and business applications using C# and the .NET platform.
- Designed, managed, and performed query optimization for SQL databases used for data collection, retrieval, and reporting.
- Managed ERP program and budgeted digital transformation projects.

Teamhead of Information Technologies, 01/2020 - 12/2021

VASI Group Companies – Istanbul

- Developed and implemented machine learning models using R and Python (TensorFlow, Scikit-learn) for sales forecasting and customer segmentation.
- Built predictive models using MATLAB and statistical analysis methods to optimize production and operational efficiency.
- Designed interactive dashboards in Microsoft Power BI to communicate model results and KPIs to non-technical stakeholders.
- Developed image processing systems to enhance productivity.

Data Analyst, 11/2018 - 01/2020

VASI Group Companies – Istanbul

- Queried, cleaned, and analyzed large-scale datasets using SQL and Python (Pandas, NumPy) to support business decisions.
- Applied data mining techniques to identify patterns and trends in customer behavior.

- Created dashboards to monitor and track key performance indicators and provided necessary trainings to increase data literacy.

EDUCATION

MSc : Electrical and Computer Engineering, Present

University of Alberta - Edmonton

- Analytics of Software
- Natural Language Processing (NLP)
- Computer Vision
- Deep Learning
- Machine Learning
- Games And Repository Data

Bachelor's Degree: Econometrics, 06/2017

Pamukkale University - Denizli

- Honour Roll, [Spring, 2017]
- 3.57 GPA
- Graduation with Distinction, [Spring, 2017]
- Ranked 1st in Class
- Operation and Analysis, Garanti BBVA , Completed 2014
- Exploring TCMM, The Central Bank of the Republic of Türkiye, Completed 2014

Relevant Coursework:

- Optimization
- Game Theory
- Simulation Methods
- Time Series Analysis
- Regression Analysis
- Multivariate Statistical Analysis
- Panel Data Analysis
- Scientific Research Methods
- Quantitative Modeling

Minor Degree: Industrial Engineering, 06/2017

Pamukkale University - Denizli

- Probability and Statistics: Gained insights into stochastic models and data-driven predictions.

- Simulation: Built and analyzed models of complex systems for better decision-making.
- Operational Research I & II: Explored techniques to optimize systems and resources.
- Production Planning and Control: Focused on ensuring efficiency in scheduling and resource allocation.
- Total Quality Control: Developed skills in maintaining and monitoring high-quality standards in manufacturing.
- Ergonomics and Occupational Health: Studied workplace design and health standards for improved productivity.

CERTIFICATIONS

- CS50 HarvardX, 12/01/20, Present
- Pamukkale University XVIth International Summer Seminar on Economy 2017, 06/01/17
- Applied Panel Data Econometrics I and II, 06/01/17, Present
- Pamukkale University XVth International Summer Seminar on Economy 2016, 06/01/16
- Applied Statistical Analysis With SPSS, 06/01/16, Present
- Applied Econometrics With Stata, 08/01/16, Present
- Applied Econometrics With EViews, 08/01/16, Present
- Foundations: Data, Data, Everywhere, 06/01/23, Present
- Ask Questions to Make Data-Driven Decisions, 07/01/23, Present
- Prepare Data for Exploration, 07/01/23, Present
- Process Data from Dirty to Clean, 08/01/23, Present
- Analyze Data to Answer Questions, 08/01/23, Present
- Share Data Through the Art of Visualization, 09/01/23, Present
- Data Analysis with R Programming, 09/01/23, Present
- Food Safety Alberta Certification (Certification No CFS01-V3-UZE2707001-20230805-1), 08/04/23, Present
- WHMIS 2015 ver. 1.0, 09/29/24, Present
- Prevention and Reporting Client Abuse (AHS), 07/19/24, Present
- Patient & Family Centred Care, Dementia, and Responsive Behaviour, 04/29/23, Present
- Musculoskeletal Injury Prevention - Manual Materials Handling, 04/29/23, Present
- Creating a Safety Culture: Health & Safety Essentials, 04/27/23, Present
- Creating a Safety Culture: Safe & Sound at Work, 04/27/23, Present
- Mandt 2.0 Building Healthy Conflict Management Skills, , 07/03/24, Present
- Nutrition and Hydration Assistance, 10/24/24, Present
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LANGUAGES

English

Professional Working

Turkish

Native or Bilingual

REFERENCES

Academic References

Assoc. Prof. Dr. Sinem Güler Kangallı Uyar

- Positions:
 - Head of Econometrics Department
 - Head of Institute Department
 - Head of Operations Department
 - Director of Economic and Econometric Application and Research Center
- Email: skangalli@pau.edu.tr
- Phone: +90 258 296 2948

Assoc. Prof. Dr. Atalay Çağlar

- Department: Econometrics Department
- Email: acaglar@pau.edu.tr
- Phone: +90 258 296 2743

Professional Reference

- **Mr. Okan Sökmen**
 - **Position:** CEO of Sokmen Software
 - **Email:** okansokmen@gmail.com
 - **Phone:** +90 542 534 3855

AWARDS

Graduated with High Honors, 06/01/17