Berke Derin Berktay

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Skills

Languages: Python, R, SQL, Java, C, C++, C#, Bash, Power BI
Technologies: Git, VSCode, Django Rest, Linux, LaTeX, QlikSense, Excel, Flask, PyTorch, TensorFlow

Experience

Database & Cloud Engineer Intern at **Vosyn**   Jan 2024 - Apr 2024, Toronto
- Contributed towards development of AI chatbot, focusing on prompt engineering for user-aligned interactions.
- Maintained backend server API development using Django Rest Framework and AWS.

Data Science Intern at **Arcelik**   Sep 2022 - Dec 2022, Istanbul
- Advanced data visualization and manipulation projects on Qlik, which led to a 30% increase in efficiency for data-driven decision-making processes of the branch's sales team.
- Designed and executed a predictive model for customer behavior, with feature engineering that was pivotal in retaining approximately 500 clients monthly.
- Improved sales forecasting models using time-series analysis, resulting in a 15% increase in prediction accuracy.

Software Engineering Intern at **eKare Inc.**   Apr 2022 - Sep 2022, Remote
- Developed an OpenCV C machine learning software for automated wound detection, resulting in a 10% reduction in diagnostic times during surgical operations across several US hospitals.
- Played a key role in both front-end and back-end development for the company website using React and Django, enhancing user experience and contributing to an uptick in monthly user sessions by over 2,000 visits.

Software Engineer Intern at **Xtinge**   Jan 2022 - Apr 2022, Istanbul
- Developed augmented reality games on both Android and iOS platforms with Unity 3D.
- Created an in-game analytics feature using C# and Unity Analytics, providing engagement data that improved user retention strategies by 5%.

Software Engineer Intern at **InterTech**   Jun 2021 - Sep 2021, Istanbul
- Used Jira and Jenkins to enhance financial data systems and trading platforms, which resulted in a 15% decrease in system latency.
- Automated risk assessment processes for trading activities with Java, reducing the time spent on assessments.

Education

Candidate for MI in Human-Centred Data Science at **University of Toronto**   Sep 2023- Apr 2025(expected)
CGPA: 3.93   Toronto, ON
MSc in Computer Science at **Albert-Ludwigs-Universität Freiburg**   Apr 2024-Sep 2024
                      Freiburg im Breisgau, Germany

BSc in Computer Engineering and BSc in Industrial Engineering (DM) at **Koc University**   Sep 2019 - Jun 2023
CGPA: 3.21   Istanbul, Turkey

Selected Projects

StudySmartBot   2024
- Created a ReactJS application connecting to Youtube API and WebSockets, to sync watching videos and music together. Also includes an AI chat bot for students to help study.
- Utilized React, Git, NoSQL, JSON, JS, CSS, HTML and a basic knowledge of AI integration.

Employee Promotion Prediction Model   2023
- Built a Decision Tree classification model to predict whether the employee should get a promotion or not with the accuracy of 89% in python (pandas, o seaborn, matplotlib, numpy, scikit-learn, pickle, and SMOTE)
- Performed cross-validation and optimized models to reduce misclassification errors to less than 11%
- Performed data imputation, data scaling, and normalization to handle over 50K historical employee records.