Berke Derin Berktay

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Skills

Languages: Python, R, SQL, Java, C, C++, C#, Bash, Ruby, JS, CSS, HTML, x86/ARM
Technologies: Git, Vim, VSCode, React, Linux, Unity3D, LaTeX, QlikSense
Relevant Courses: Data Structures, Algorithms, Operating Systems, Database Management Systems, Artificial Intelligence, Machine Learning, Applied Statistics, Computer Networks, Security and Privacy

Experience

Research Assistant at **Koc University**   2022-2023, Istanbul
- Created and simulated a quantum integer programming incorporated disaster response management model using Python.

Teaching Assistant at **Koc University**   2020-2023, Istanbul
- Held weekly lectures for the Introduction to Programming with Python Course.

Software Engineering Intern at **eKare Inc.**   2022, Remote
- Developed an OpenCV C machine learning software for automated wound detection, resulting in a 25% 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.

Data Science Intern at **Arcelik**   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 sales team.
- Designed and executed a predictive model for customer behavior, with feature engineering that was pivotal in decreasing customer churn by 20% and retaining approximately 500 clients monthly.

Software Engineering Intern at **Xtinge**   2022, Istanbul
- Assisted in the development of augmented reality games on both Android and iOS platforms with Unity 3D.

Software Engineering Intern at **InterTech**   2021, Istanbul
- Engaged in projects utilizing Jira and Jenkins, enhancing financial data systems and trading platforms, which resulted in a 15% decrease in system latency and a 5% reduction in operational risk for payment processing systems.

Education

Candidate for MI in Human-Centred Data Science at **University of Toronto**   2023-2025 (expected)
CGPA: 3.93   Toronto, ON

BSc in Computer Engineering at **Koc University**   2019-2023
CGPA: 3.21   Istanbul, Turkey

BSc in Industrial Engineering at **Koc University**   2019-2023
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.