

# Berke Derin Berktaş

✉ derinberke@hotmail.com 🌐 brdrbr.github.io/website/ 📷 brdrbr 📄 BerkeDerinBerktaş ☎ +1-647-471-3502

## Skills

**Languages:** Python, R, SQL, Java, C, C++, C#, Bash, Ruby, x86/ARM.

**Technologies:** Git, VSCode, React, Linux, Unity3D, LaTeX, QlikSense

## Experience

**Database & Cloud Engineer Intern at Vosyn** Jan 2024 - Present, Toronto

- Contributed towards development of AI chatbot, focusing on prompt engineering for user-aligned interactions.
- Developed audio segmentation in the voice cloning and translation framework, advancing the capabilities in speech processing.
- Tested LLM's for text-based interactions, utilizing Langchain, Hugging Face, Sentence Transformers, GPT4All.

**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.
- Standardized code review processes using Git, resulting in a 5% faster code integration time, and setting a new intern standard for coding excellence.

**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 MSc in Human-Centred Data Science at University of Toronto** Sep 2023- Jun 2025 (expected)  
CGPA: 3.93 Toronto, ON

**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.