EMRE BERAY BOZTEPE

DATA SCIENTIST | DATA ANALYTICS | APPLIED MACHINE LEARNING

Görlitz, Germany | +49 170 667 3549 | berayboztepe@outlook.com

LinkedIn | GitHub | Portfolio | Open to relocation across Germany | Available Jan 2027

PROFESSIONAL SUMMARY

M.Sc. Data Science graduate with hands-on experience in Python-based analytics, machine learning evaluation and database-backed applications. At CASUS/HZDR, build reproducible data workflows and automated comparisons across varied imaging datasets; previously delivered features in a production software team.

TECHNICAL SKILLS

Programming & analytics: Python, SQL, pandas, NumPy, Spark; data cleaning, preprocessing, exploratory analysis and feature engineering

Machine learning & evaluation: scikit-learn, PyTorch, model benchmarking, hyperparameter search, automated metrics, experiment tracking

Databases & applications: PostgreSQL, MySQL, FastAPI, Flask, REST APIs, Docker, Streamlit, Matplotlib, Seaborn, Git, Weights & Biases

PROFESSIONAL EXPERIENCE

Research Assistant (Scultetus Early Career Fellow) | CASUS / HZDR, Görlitz, Germany

Mar 2026 - Present | Fixed-term contract through Dec 2026

- Built reusable Python/PyTorch data workflows for loading, preprocessing, normalization and augmentation across VIRVS, synthetic, organoid and other 2D/3D datasets.
- Automated comparative evaluation for dozens of diffusion, flow-based and U-Net/pix2pix model experiments, including residual versus non-residual variants.
- Analyzed MSE, SSIM, PSNR, Pearson correlation (PCC), cell F1 and cell recall to identify metric-specific gains, limitations and baseline trade-offs.
- Ran experiments on GPU/HPC infrastructure, managing configurations, GPU memory and tracked results with Git and Weights & Biases.

Game Developer | NARCADE, Istanbul, Turkey

Jul 2022 - Oct 2023

- Developed and maintained 10+ mobile-game features in Unity/C#, resolving production issues and improving gameplay performance.
- Implemented advertising and monetization components in an Agile workflow using Git, Jira and code reviews.

SELECTED PROJECTS

News Analytics & Classification Prototype | Python, scikit-learn, PostgreSQL, Flask, Streamlit, Docker - Built API ingestion, text preprocessing, model comparison and database-backed application interfaces.

Ryanair Labs Take-Off Weight Prediction | Python, pandas, scikit-learn, XGBoost - Built feature-engineering and regression workflows for airline operational data; compared models and preprocessing strategies using RMSE.

EDUCATION

M.Sc. Data Science, University of Wrocław, Poland | Oct 2023 - Sep 2025 | GPA: 4.58/5.00 | Thesis: symbolic reasoning with small language models

B.Sc. Computer Engineering, Çanakkale Onsekiz Mart University, Turkey | Sep 2018 - Jun 2022 | GPA: 3.17/4.00

Erasmus+ Exchange, Lublin University of Technology, Poland | Computer Science | Feb - Jun 2021

ADDITIONAL INFORMATION

Research & leadership: Led the collaborative AVESA AI research project, coordinating tasks and integrating technical contributions; 2 first-author journal papers; ISAS2022 presenter.

Languages: Turkish (native), English (C1), German (A1), Polish (A1).