

Berke Aslan

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Education

- MSc University of Groningen**, Econometrics, Operations Research and Actuarial Studies Groningen, the Netherlands
Sept 2024 – Aug 2025
- Profile: **Operations Research** with an emphasis on mathematical optimization and machine learning (ML)
 - Thesis: Developed a novel method using Bézier curves for optical waveguide routing in photonic integrated circuits, demonstrating improved performance over existing methods for crossing-free topologies
 - Relevant Projects: (1) Led the winning team on an electric vehicle routing optimization problem using adaptive large neighborhood search on the Hábrók high performance computing cluster. (2) [Implemented AlexNet from scratch](#) and trained on the Tiny ImageNet dataset using a NVIDIA GB200 GPU.
- BSc University of Groningen**, Econometrics and Operations Research Groningen, the Netherlands
Sept 2019 – Aug 2024
- Thesis: Evaluated Differentially Private Generative Adversarial Networks for privacy-preserving synthetic data generation, measuring utility against privacy budget constraints
 - Extracurriculars: Served as year representative and participated in committees at VESTING, FSG (Dutch Banking Tour 22/23), and G.S.R. 'Aegir' (rowing association)

Experience

- Student Consultancy Group**, Strategic Technical Advisor (Project-based) Groningen, the Netherlands
Aug 2025 – Dec 2025
5 months
- Short-term consulting engagement (by design) advising Dutch cultural institutions on cloud infrastructure and migration strategy, generating €50K+ in annual savings
- De Bezwaarfabriek**, Co-founder & ML Engineer Groningen, the Netherlands
Dec 2023 – Aug 2025
1 year 9 months
- Co-founded a legal-tech startup that automated traffic fine appeals using large language models (LLMs), reducing processing time from ~2 hours to under 5 minutes
 - Engineered an end-to-end ML pipeline and workflow utilizing optical character recognition and fine-tuned LLMs (via low rank adaptation and knowledge distillation) to automate document ingestion, draft generation, and final submission of legal appeals
 - Discontinued due to lengthy appeal and payout procedures at the Public Prosecution Service
 - Featured in Dutch media including [De Telegraaf](#) and [NL Times](#), and on the [Legal Tech Map](#)
- Kantar**, Data Analyst Groningen, the Netherlands
Sept 2022 – Nov 2023
1 year 3 months
- Delivered statistical and ML-driven analysis to Fortune 500 companies and major Dutch brands using Python (e.g., Pandas, NumPy, and scikit-learn), SQL, and Power BI (for dashboarding)
 - Built an audio recognition system based on Shazam's fingerprinting algorithm to identify ads in audio streams
 - Laid the groundwork for integrating LLMs into existing analytics processes
- Data Analytics Team**, Data Scientist & Project Leader Groningen, the Netherlands
Jan 2022 – Mar 2023
1 year 2 months
- Developed custom warehouse simulations to optimize order fulfillment and placement strategies for logistics (approx. €2.4 billion group revenue) and e-commerce (approx. €520 million revenue) companies

Projects

- TreatyHopper** Dec 2025 – Feb 2026
- Developed a first-of-its-kind tax optimization tool leveraging Pydantic AI (agentic workflows), Next.js, and Supabase (SQL), applying Dijkstra's algorithm to identify the most cost-effective routes for global profit distribution across international tax treaties

Background

Nationalities: Dutch, Turkish

Native Languages: Dutch, English, Turkish

Programming Languages: Python, R, Rust, C/C++, SQL, JavaScript

Frameworks: Pandas, NumPy, scikit-learn, PyTorch, Pydantic (AI), PostgreSQL, React, Next.js, Supabase, Tailwind CSS

Tools: Git(Hub), Claude Code, Cursor, Docker, OpenRouter, Adobe Photoshop and Illustrator, Microsoft PowerBI and 365