

# Mikolaj Hilgert

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## SKILLS

<b>Technologies</b>	C# (.NET), Python, Java (Spring), Javascript (NestJS), Scala, Azure, Spark, Hadoop, Airflow, LangChain, Pinecone, Kubernetes, MongoDB, Docker
<b>Tools/Skills</b>	Git, SQL, Microsoft Azure, Google Cloud, DevOps, MLOps, Adobe Suite, Office, Cinema4D, Postman, $\LaTeX$
<b>Languages</b>	English (native), Polish (native), Czech (proficient), German (B1)

## EXPERIENCE

### Software Developer (Part-Time)

CY2

Sep 2024 — Present

s-Hertogenbosch, The Netherlands

- Developing a multi-tenant, LLM-powered chatbot platform that empowers educational organizations to create tailored chatbots using their own documents and datastores.
- Taking a leading role in the project, supervising progress, and delivering presentations.

### Graduate Data Science Intern (Full-Time)

ASML

Feb 2024 — Jul 2024

Veldhoven, The Netherlands

- Thesis title: Impact of parallel unscheduled machine downtime on eXtreme Long Downtime (XLD) frequency of DUV lithography systems.
- Conducted data analysis and developed an algorithm to quantify the impact of staffing on XLD frequency.
- Researched and implemented machine learning techniques to predict XLD occurrences.

### Trainee Software Engineer (Part-Time)

CM.com (prev. Building Blocks)

Mar 2023 — Nov 2023

Tilburg, The Netherlands

- Collaborated on improving the AI Decisioning Engine which supplies mass consumer data personalisations, increased conversion rates, order value and lower returns for clients like Coca-Cola, Corendon, Blokker and Basic-fit.
- Enhanced the IntelliJ IDEA development plugin, which was utilised on a daily basis by over 20 data scientists, expediting the development cycle and streamlining the delivery of tailored solutions for all Building Blocks' clients.

### Software Engineering Intern (Full-Time)

CM.com (prev. Building Blocks)

Sep 2022 — Feb 2023

Tilburg, The Netherlands

- Implemented an advanced user detail encryption module to a mature multi-million-line codebase, enhancing data security and GDPR compliance.
- Utilized Apache Spark for efficient large-scale data processing, successfully executing load tests on datasets comprising millions of records and achieving results within sub-second latency.
- Developed a data loader for Building Blocks' proprietary platform for files stored in Azure Blob Storage. The data loader was used to fetch data for basket prediction, anti-churn AI models as well as boosting efficiency of workflows, improved system observability and data integrity, while simultaneously eliminating the need for custom code.

### Research Student Intern (Part-Time)

Microsoft

Feb 2019 — Jun 2019

Prague, Czechia

- Conducted Market research on Quantum computing and presented findings for an internal Hackathon.

## NOTABLE PROJECTS

### Full-Stack Developer

LabelGenius - Individual University project

Sep 2023 — Jan 2024

- An online platform that connects data providers with skilled labellers, streamlining image data labeling to create high-quality data-sets that are used in AI and machine learning applications.
- Developed a micro-service architecture in C# using .NET 6.0, with deployment to a managed Kubernetes cluster in Microsoft Azure.

### Data Pipeline Developer

Canon - Group University project

Sep 2021 — Jan 2022

- Collaborated in a high-performing team of 5 within a Scrum agile framework.
- Contributed to the design and development of an ETL data pipeline using Python and Apache Airflow.

## EDUCATION

Master of Science in Data Science in Business and Entrepreneurship, JADS (Tu/e & Tilburg University)

Aug 2024 — Jul 2026

Pre-master in Data Science in Business and Entrepreneurship, JADS (Tu/e & Tilburg University) **Grade: 8.0**

Jan 2023 — Jun 2023

Bachelor of Science in ICT & Software Engineering, Fontys University of Applied Science

**Grade: 9.2**

Sep 2020 — Jul 2024