

# Martin Bílek

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**Nationality:** Czech



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## Experience

### Data Scientist/Analyst

*Czech Post-Balíkovna (Analytics Team), Prague, Czechia*

*April 2023 – April 2024 (2 years)*

- Forecasting the number of parcels using time series models.
- Email topic modelling using NLP (LDA, Word2Vec, BERTopic).
- RFM analysis (Recency, Frequency, Monetary) – Clustering with K-means.
- Implemented a greedy algorithm for parcel box distribution using Python.
- Data analysis and reporting in Power BI and IBM Cognos Analytics.

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## Related Experience

### Python Scripting Intern/Developer

*MECAS ESI, Pilsen, Czechia*

*July 2013 (1 month)*

- Developed a **Python** script to generate commands for a CFD postprocessing program.

### PhD Student (CFD Simulation Automation)

*Brno University of Technology, Faculty of Mechanical Engineering, Brno, Czechia*

*June 2009 – June 2013 (4 years)*

- Developed **VBA** scripts to automate command generation for CFD optimization tasks, streamlining simulation workflows

## Education

### Master's Degree in Fluid Engineering

*Brno University of Technology, Brno, Czechia*  
2007 – 2009

### Bachelor's Degree in Mechanical Engineering

*Brno University of Technology, Brno, Czechia*  
2004 – 2007

### Maturita (A-Levels)

*Secondary Technical School Trutnov, Trutnov, Czechia*  
2000 – 2004

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## Qualifications

### Data Science

*Software Development Academy (SDA) | 08/2022 – 02/2023 (6 months)*

- Completed a 214-hour online course covering:
  - Python for Data Science, Git, Feature Engineering, Data Visualization
  - Machine Learning (Supervised, Unsupervised Clustering, Deep Learning - CNN, RNN for Time Series)
  - Computer Vision, NLP, GCP, Databricks

### Time Series Analysis and Forecasting

*ACREA CR | 09/12/2024 – 11/12/2024 (3 days)*

- Completed an intensive in-person 3-day course focusing on time series analysis and forecasting techniques.
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## Skills

- **Programming Languages:** Python, VBA, SQLite, PostgreSQL, HTML, CSS, JS
- **Other:** Git, Docker, REST API, Flask, VSC, Linux
- **BI Software:** Power BI, IBM Cognos Analytics
- **Python Libraries:** PySpark, Pandas, Polars, Numpy, Scikit-learn, Scipy, TensorFlow, Keras, Sktime, Matplotlib, Seaborn, Plotly
- **Cloud platforms:** Azure (Databricks, Data Factory, Data Lake), AWS, GCP

## Personal projects

### Book Recommendation App

- *Technologies:* Python, Flask, Docker, Google Cloud
- *Description:* Developed and deployed a personalized book recommendation app using collaborative filtering and Flask. Dockerized and hosted on GCP.
- *Link:* [Live App](#) | [GitHub Repository](#)

### Azure Pipeline for Upcoming Films

- *Technologies:* Azure, Python, PySpark, Databricks, Data Factory, Vaults, CLI, Data Lake
- *Description:* Scraping upcoming films, processing in azure and displaying in Databricks dashboard – all as one pipeline in Azure Data Factory.
- *Link:* [GitHub Repository](#)

### Personal Website

- *Technologies:* HTML, CSS, JS, PHP Mailer, reCAPTCHA
  - *Description:* Designed and deployed a responsive personal website with custom features like secure contact forms.
  - *Link:* [Website](#)
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## Languages

- Czech: Native (C2)
  - English: Advanced (C1)
  - Spanish: Upper-Intermediate (B2)
  - Portuguese: Intermediate (B1)
  - German: Beginner (A1)
  - French: Beginner (A1)
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## Other Experience

### English and Czech Teacher

*Freelance, South America* | 11/2018 – 04/2022 (3.5 years)

### Development Engineer (Trainee Program)

*Edwards Vacuum (Part of the Atlas Copco Group), Clevedon, United Kingdom* | 06/2014 – 12/2014 (6 months)

### PhD Student - ERASMUS Program

*University of Timisoara, Faculty of Mechanical Engineering, Timisoara, Romania* | 01/2011 – 06/2011 (6 months)

## Interests

- **Technology & Science:**  
Coding, science, new technologies, DIY
  - **Personal Development:**  
Investing, reading books, traveling, learning and teaching foreign languages
  - **Entertainment:**  
Cinema, history, artworks
  - **Sports & Outdoor Activities:**  
Swimming, fitness, hiking, mountaineering
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## GitHub Portfolio

<https://github.com/martincho48/Portfolio>

## LinkedIn Profile

<https://www.linkedin.com/in/martin-bilek48/>