Markus Köfler

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Education

Vienna University of Technology — Oct 2023 – Present
MSc Data Science

University of Illinois at Urbana-Champaign — Jan 2022 – Jun 2022
Exchange Semester *GPA:* 3.87/4
- <u>Relevant Coursework:</u> Python for Data Science, Intro. to Computer Science, Statistics, Leadership & Entrepreneurship
- Joint-Study Scholarship (worth $19,200)
- Activities: Joined YMCA & Flipping Illini, participated in meetings of local Rotary Club

University of Klagenfurt — Oct 2020 – Jul 2023
BSc International Business & Economics *Grade Average:* 1.29/5
- <u>Bachelor Thesis:</u> Construction of Annual Data Sets for the Econometric Analysis of Long-Run Money Demand
  - ◇ Participated in a funded research project from the Department of Economics by searching, adjusting and adding 124 time-series of selected economic variables to a large data collection.
  - ◇ Applied temporal aggregation & splicing techniques. Developed an imputation algorithm written in Python.
- <u>Relevant Coursework:</u> Deep Learning, AI & Machine Learning, Python, Econometrics, Data Analytics
- 3 × Merit Scholarship

Technical Skills

Programming & Markup Lamguages: Python 3, R, SQL, Git, MiniZinc, LaTeX, Markdown, HTML
Libraries: TensorFlow/Keras, Scikit-Learn, Pandas, NumPy, MatplotLib & Seaborn, OpenCV, Tidyverse, GGplot
Software & Tools: Jupyter & Google Colab, VSCode, RStudio, Tableau, GitHub, Excel, Google Suite, Big-Query

Experience

uniforce Consulting — Aug 2023 – Present
Junior Consultant *Vienna*

University of Klagenfurt — Oct 2022 – Jan 2023
Tutor for Econometrics & Programming in R *Klagenfurt*
- Helped improving the grade average from 4.1 to 3.21 and the failing rate from 22% to 10% compared to previous year.
- Hold weekly tutorials for 40+ students. Demonstrated practical examples with R notebooks complementing the lecture.
- Content: Multiple Linear Regression, BLUE Criteria & Quality of Estimator, Hypothesis Testing, Pooled and Panel Data Models, Visualization, Statistical Modeling & Monte Carlo Simulations

Raiffeisen Landesbank — Aug 2021
Office Assistant *Klagenfurt*
- Organized customer data with Excel. Implemented nested conditionals, pivot tables, filtering & sorting techniques.

Projects & Extra-Curricular Activities

Skin Cancer Classification | *Python, Google Colab, TensorFlow/Keras, GitHub* — Jun 2023
- Comparison of VGG16-inspired CNNs with and without soft-attention mechanism on dermatoscopic skin lesion images.
- Achieved on average a 1.5% improvement in F1-scores by implementing soft-attention module.

Bitcoin Price Forecast & Price Scraper | *Python, Google Colab, TensorFlow, Scikit-Learn, R, GitHub* — Feb 2023
- Comparing Long Short-Term Memory model to a simple regression model as the benchmark. Training and predictions have been carried out in a recursive manner using the moving window technique.
- Real-time Bitcoin price scraper tool using several methods.

Open-Sourced Exercise Repositories | *Python, R, GitHub* — Oct 2022 – Jun 2023
- Open-sourced proposed code solutions and pre-processed data sets to home exercises in Data Analytics, Econometrics and Macroeconomics for fellow students and offered guidance with follow-up questions.

US Flight Delay Analysis | *R, RStudio, SQL, GitHub* — Sep 2022
- Data engineering and exploratory analysis using R and SQL-queries. Project aimed towards implementing and demonstrating skills acquired from the Google Data Analytics Certificate Course.

Certifications

Coursera: Google Professional Data Analytics, The Nuts and Bolts of Machine Learning
DataCamp: Intermediate SQL, Introduction to R