KEVIN INNEREBNER BSC.

Data Science | Machine Learning | Compilers | Software Technology

CONTACT

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- in Kevin Innerebner

EDUCATION

🎓 MSc. Computer Science
- 📅 09/2021 - ongoing
- 📍 Graz University of Technology, Graz

🎓 Erasmus+ Student Exchange
- 📅 01/2022 - 05/2022
- 📍 University of Jyväskylä, Jyväskylä Finland

🎓 BSc. Computer Science
- 📅 09/2018 - 10/2021
- 📍 Graz University of Technology, Graz

SKILLS

Programming Languages
C, Python, Java, C# ●●●●●○
C++, R, SQL, Javascript ●●●●○○
Julia, Rust ●●●○○○

Software & Tools
Git ●●●●○○
Data handling/analysis ●●●●○○
(e.g. numpy, scipy, pandas, …)
Apache SPARK ●●●●○○

Languages
German ●●●●●○
English ●●●●●○

HONOURS AND AWARDS

- 🏆 Dean's List 2022
- 🏆 Dean's List 2020
- 🏆 Dean's List 2019
  https://www.tugraz.at/fakultaeten/csbme/studies/deans-list/
- 🏆 CEOI 2018 - Team Austria
  https://ceoi2018.pl/teams/

⚙ WORK HISTORY

💼 Research Assistant
- 📅 06/2022 - 07/2022
- 📍 Graz University of Technology

Continuation of Research Assistant position

💼 Tutor
- 📅 10/2019 - 07/2020
- 📍 Graz University of Technology

Teaching students **C and C++**.

💼 Research Assistant
- 📅 07/2019 - 12/2021
- 📍 Graz University of Technology

Work on various research projects. See **Projects**.

📇 PROJECTS

</> DAPHNE
- 📅 11/2020 - 07/2022
- 📍 Graz University of Technology, Graz
- 🌐 https://daphne-eu.eu
- 🗄 w/ MLIR, LLVM, C++, SIMD, ANTLR4

- **MLIR**-based compiler for **Data Analysis** and **Machine Learning** pipelines.
- EU-funded project with **13** members.
- Prototype and experimental feasibility study as **BSc. thesis**.
- https://github.com/daphne-eu/daphne
- See **Publications**.

</> ExDRa
- 📅 07/2019 - 07/2022
- 📍 Graz University of Technology, Graz
- 🌐 https://www.exdra.de/
- 🗄 w/ Spark, Hadoop, Java, Python

- Exploratory data science on **federated raw data**
- Shared project with **Siemens, TU Graz, DFKI** and **TU Berlin**
- See **Publications**.

</> SystemDS
- 📅 07/2019 - 07/2022
- 📍 Graz University of Technology, Graz
- 🌐 https://systemds.apache.org/
- 🗄 w/ Spark, Hadoop, Java, Python

- **ML system** for the end-to-end data science Lifecycle.
- Worked on various components (Federation, Tensors, Python-API, …).
- https://github.com/apache/systemds
- See **Publications**.

PUBLICATIONS

Federated Data Preparation, Learning, and Debugging in Apache SystemDS

S. Baunsgaard, M. Boehm, **K. Innerebner**, M. Kehayov, F. Lackner, O. Ovcharenko, A. Phani, T. Rieger, D. Weissteiner, S. B. Wrede

2022 CIKM 2022 ACM DL

DAPHNE: An Open and Extensible System Infrastructure for Integrated Data Analysis Pipelines

P. Damme, M. Birkenbach, C. Bitsakos, M. Boehm, P. Bonnet, F. Ciorba, M. Dokter, P. Dowgiallo, A. Eleliemy, C. Faerber, G. Goumas, D. Habich, N. Hedam, M. Hofer, W. Huang, **K. Innerebner**, V. Karakostas, R. Kern, T. Kosar, A. Krause, D. Krems, A. Laber, W. Lehner, E. Mier, M. Paradies, B. Peischl, G. Poerwawinata, S. Psomadakis, T. Rabl, P. Ratuszniak, P. Silva, N. Skuppin, A. Starzacher, B. Steinwender, I. Tolovski, P. Tözün, W. Ulatowski, Y. Wang, I. Wrosz, A. Zamuda, C. Zhang, X. X. Zhu

2022 CIDR 2022 PDF

ExDRa: Exploratory Data Science on Federated Raw Data

S. Baunsgaard, M. Boehm, A. Chaudhary, B. Derakhshan, S. Geißelsöder, P. Marian Grulich, M. Hildebrand, **K. Innerebner**, V. Markl, C. Neubauer, S. Osterburg, O. Ovcharenko, S. Redyuk, T. Rieger, A. R. Mahdiraji, S. B. Wrede, S. Zeuch

2021 SIGMOD 2021 ACM DL

SystemDS: A Declarative Machine Learning System for the End-to-End Data Science Lifecycle

M. Boehm, I. Antonov, S. Baunsgaard, M. Dokter, R. Ginthör, **K. Innerebner**, F. Klezin, S. Lindstaedt, A. Phani, B. Rath, B. Reinwald, S. Siddiqi, S. B. Wrede

2020 CIDR 2020 arXiv