Kai Helli

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Education and Training

Technical University of Munich

Oct. 2023 – Present

Munich, Germany

Master of Science in Informatics
University of Freiburg

Oct. 2020 - Sep. 2023

Bachelor of Science in Computer Science

Freiburg, Germany

• Grade: 1.2 / Thesis Grade: 1.0 (German grading system)

• Thesis: Drift-Resilient TabPFN – A Bayesian Approach for Distribution Shifts in Dynamic Environments

University of Virginia

 $\mathbf{Aug.}\ \mathbf{2022}-\mathbf{Dec.}\ \mathbf{2022}$

 $Charlottesville,\ USA$

Exchange Student in Computer Science SensoPart Industriesensorik GmbH

Sep. 2013 – Feb. 2016

Computer Science Expert - System Integration

Gottenheim, Germany

• Vocational Training – Certificate of Chamber of Industry and Commerce

• Shortened by 6 months because of excellent performance – Grade: 1.2 (German grading system)

Awards

Stiftung Begabtenförderung berufliche Bildung – Aufstiegsstipendium

Oct. 2020 - Present

Scholarship

• Awarded for exceptional talent and commitment during vocational training and in the workplace

 ${\bf Baden\text{-}W\"{u}rttemberg~Stiftung-BW\text{-}Stipendium}$

Aug. 2022 – Dec. 2022

Scholarship

 ${\bf Stiftung\ Begabten f\"{o}rderung\ berufliche\ Bildung - Weiterbildungsstipen dium}$

Jan. 2017 - Dec. 2019

Scholarship

• Awarded for outstanding performance during vocational training

Work Experience _

University of Freiburg

Sep. 2023 - Sep. 2024

Research Assistant Freiburg, Germany

• Contributing to the TabPFN codebase in the Machine Learning Lab, led by Prof. Dr. Frank Hutter, with the main focus on enhancing TabPFN's resilience against temporal distribution shifts in tabular data.

SensoPart Industriesensorik GmbH

Feb. 2016 - Jul. 2022

Network Engineer

Gottenheim, Germany

- Redesigned and migrated the organization-wide network infrastructure utilizing a hierarchical model to improve the performance, resilience, scalability, and security of the enterprise network.
- Planned and coordinated the network aspects of a newly built production hall including a secondary data center (e.g. data center interconnects, network cabinets, access points) to improve fault tolerance of the IT infrastructure.
- Designed and implemented the network infrastructure of remote sites, including international branches, and their secure connection to the corporate network.
- Maintained consolidated network services, e.g. routers, switches, firewalls, access points, and assisted in various IT projects on a part-time basis since October 2020.

Publications _

Drift-Resilient TabPFN: In-Context Learning Temporal Distribution Shifts on Tabular Data

Kai Helli*, David Schnurr*, Noah Hollmann, Samuel Müller, Frank Hutter; * Equal contribution

Accepted at: NeurIPS 2024 (Main Track), NeurIPS 2024 (TRL Workshop), AutoML Conference 2024 (Workshop Track)

Additional Skills and Interests _____

Languages German (native), English (fluent)

Development C, C#, Python, JavaScript, SQL, Docker, Git, SVN

Technologies TCP/IP, IPv6, VPN, WLAN, VLAN, PKI, RADIUS, 802.1X, OSPF, Microsoft AD

Certificates Cisco Certified Network Professional – Routing and Switching (CCNP),

Cisco Certified Design Professional (CCDP)

Interests Deep Learning, Exploring other cultures, Travelling, Scuba Diving, Hiking, Snowboarding