Kate Hofmann

Address:	Hermannstr 171, 12051 Berlin
Born:	24.03.1990
Tel.:	+49 176 8801 7477
Email:	k8hofmann@gmail.com

Work experiences

03/2023 – present

Senior Full Stack Data Scientist, Senior Data Engineer

Trimble Inc. (Colorado, United states)

- Preprocessing data and building predictive models, writing calculation algorithms
- Building data pipelines, writing postgres procedures
- Database management and co-creating database architecture (Postgres)
- Co-ownership of cloud arhitecture, cloud infrastructure orchestration and optimization (AWS, terraform)
- Bridging a gap between customers, business and tech team
- Utilizing development processes

08/2022 – 03/2023

Senior Data Engineer

Transporeon GmbH (Ulm, 89075)

- Preprocessing data and building predictive models, writing calculation algorithms
- Writing postgres procedures and building data pipelines
- Database management and contributing to the architecture (Postgres)
- Co-ownership of cloud architecture and cloud orchestration (AWS, terraform)
- Establishing developing processes and quality standards

04/2019 – 08/2022

Senior Data Scientist

Tracks GmbH (Berlin, 12435)

- Extracting insights from structured data, preprocessing data and building predictive models
- Building data pipelines
- Implementation of (containerization) services (Python, Docker)
- Co-ownership of cloud architecture and cloud engineering (AWS, terraform)
- Database management and ownership of a small part of database architecture (Postgres)
- Management of existing CI (Jenkins), migration to and implementation of new CI/CD (GitHub)

05/2018 – 01/2019　　**IT Consultant in Machine Learning**

Various projects, HELLA (Berlin, 12435)

- Building a damage detection system for automotive applications; error detection system for CAN messages; parameter search for light distribution in automotive
- Implementation of a convolutional/deconvolutional surrogate model for parameter search (Python, Keras)
- Implementation of a semi-supervised machine learning LSTM model for anomaly detection (Python, Keras)
- Pipeline design and implementation; signal preprocessing (audio files), training a model on normal data and a model validation on normal and anomalous data
- Deployment of Machine Learning models to cloud infrastructure (AWS)
- Setup a Machine Learning Luigi workflow

05/2017 – 11/2017　　**Software Engineer in Research Software Development**

Gesundheitscloud, Hasso-Plattner Institute (Potsdam,14482)

- Building a zero knowledge platform for digital health data platform, ensuring end to end encryption with microservices
- Architectural design and implementation of backend services (Scala)
- Database connection and management (Azure, PostgreSql and HANA)

02/2016 – 11/2016　　**Research Scientist in Scientific Research**

Straw Lab, Albert-Ludwigs University of Freiburg (Freiburg, 79085)

- Project 'A comparison between neurally inspired circuit models and cognitive models in synthetic agent behaviour'
- Participated in a formulation of reinforcement learning project
- Had the main role in implementation (90 %), (Python, Rllab, OpenAI Gym)

07/2015 – 02/2016　　**Research Technician in Scientific Research**

Strawlab, Research Institute of Molecular Pathology (Vienna, 1030)

- Work on a project 'Asymetric Processing of Visual Motion for Simultaneous Object and Backgroud Response'
- Calibrating and adjusting a setup, that projects VR, (ROS, Arduino, Python, C++)
- Performed behavioural experiments on fruit flies
- Performed data analysis (Pandas)

09/2012 – 06/2015　　**Software Developer in IT**

ComTrade d.o.o. (Ljubljana, 1000)

- Development of 'e-davki', a national information system for tax government (.NET framework, C#, JavaScript, MySQL, xml, html, css, TortoiseSVN, …)
- Development of 'NLB-Klik', an e-banking system (.NET MVC, C#, MySQL)

Education

10/2014 – 09/2016	**M.Sc in Cognitive Science**

University of Ljubljana, University of Vienna
- Basics of neurology, advanced statistics, philosophy, psychology, linguistics, phenomenology and overview of cognitive science, research in cogitive science
- Thesis: A framework for evaluation of computational cognition

10/2008 – 09/2014	**B.Sc. in Mathematics and Computer Science**

University of Ljubljana
- Mathematic courses: analysis, linear algebra, discrete structures, combinatorics, optimization methods, probability and statistics, affine geometry
- Computer science courses: databases, programming, digital circuits, operating system, algorithms and data structures, computer communications
- Elective artificial intelligence courses: intelligent systems, machine perception, development of intelligent systems
- Thesis: Computer controlled feedback loop between light stimulator and the photoreceptor response

Technical skills (1 – poor … 5 – outstanding)

Programming languages:				
	Python	5	css	4
	SQL	5	C++	2
	C#	4	Scala	2
	HTML	4	Go	2
	JavaScript	4	Java	2
	XML	4		

Frameworks/tools:	
	python libraries: pandas, numpy, scikit-learn, plotly, shapely
	ML libraries: keras, tensorflow
	GitHub
	GitHub Actions, Jenkins, Docker, terraform
	ROS, CUDA, OpenAI Gym, Rllab
	Arduino

Databases:	PostgreSQL, MySql

Cloud Services:	AWS (S3, RDS, Lambda, Step Functions, EC2, ECR, CodeArtifact, API Gateway, Route 53, Cloud Formation, ...) Azure

OS:	Linux (preferred), OS X, Windows

Publications

Publication: Horvat, K. (2015, May). Color vision evaluation based on dynamic intensity adaptation of a tunable light source. In Mei: CogSci Conference 2015, Ljubljana.

Talk: Hofmann, K. (2016, May). Towards opening a black boxes in behavioural science through simulation. On Mei: CogSci Conference, Vienna.

Other skills

Driving License: Yes (B)

Languages: Slovenian – native
English – C2
German – B2

Social skills: I am curious, persistent, sensible and driven by progress. I am also empathetic and sensitive. That said, in a professional environment I don't easily take things personally. I thrive as a team player and am a good listener.

Organisational skills: I'm always aware of a bigger picture of a project and an organisation and am capable of holding up customer's, business' and tech perspective simultaneously. That results in easy prioritization and seamless definition/adjustment of goals. My work is always planned well ahead.