Kate Hofmann

Address: Corinthstrasse 47, 10245 Berlin
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Education

10/2014 – present

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

Work experiences

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 anomaly data
- Deployment of Machine Learning models to cloud infrastructure (AWS)
- Setup a Machine Learning Luigi workflow (infrastructure and architecture)

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 %), using Python, Rllab, OpenAI Gym, Git...

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'
- Calibrated and adjusted a setup, that projects VR, using Linux OS, ROS, Arduino, Python, C++
- Performed behavioural experiments on fruit flies
- Performed data analysis, using Pandas

09/2012 – 06/2015 **Software Developer in IT, Software Services and Solutions**

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

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

Technical skills (1 – poor ... 5 – outstanding)

Programming languages:	Python – 5	R – 4
	C# – 5	Matlab – 4
	Scala - 4	Arduino – 4
	JavaScript – 4	XML – 4
	Java – 4	C++ – 3
	MySQL – 4	aws – 3
	Css – 4	assembler – 1
	HTML – 4	C – 1
Frameworks:	pandas – 5	.NET MVC – 3
	Numpy – 5	Scikit-learn – 2
	ROS – 5	Theano – 2
	Keras – 4	CUDA – 2
	.NET general – 4	TensorFlow – 1

Benchmarks:	OpenAI Gym, RIlab
Tools:	PyCharm, IntelliJ, Visual Studio, Terminal, Matlab
OS:	Linux, OS X, Windows
Specific technologies:	gitHub, Docker, TortoiseSVN, IIS

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 – B1
Social skills:	I am adjustable, sincere and reliable as well as inexorable, diligent and persistant. I orient myself well in new, unexpected situations. When I hit an obstacle, I react calmly and instantly search for a creative alternative, that leaves everybody satisfied. I am a joyful team player, able to ask for help when needed.
Organisational skills:	I'm always aware what are my goals, therefore it's not hard to arrange activities to achieve them, or adjust goals, if needed. My work is always well planned ahead, hence multitasking is possible or even welcome.