Benedikt Mayer

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Informatics student interested in machine learning, software engineering, humancomputer interaction, functional programming, data visualization and mixed reality.

Work Experience

Since 09.2019 Microsoft, Munich, - Machine Learning Working Student

Technologies: <u>C#</u> (Asp.net Core, WPF), <u>Python</u>, Microsoft Azure, Microsoft HoloLens 2 Building showcases and conducting workshops on the intersection of software engineering and data science for the Microsoft Technology Centre Munich.

12.2018-05.2019 **Bundeswehr University, Munich,** – Research Assistant

Technologies: <u>C#</u>, Unity, Motive, Microsoft HoloLens, HTC Vive, Leap Motion

Thesis supervision on HCI topics, including VR/AR, eye-tracking, gesture interaction and

machine learning.

10.2017-04.2018 Intel Corporation, Munich, – Software Engineering Intern

Technologies: <u>JavaScript</u> (jQuery), HTML5, CSS (Bootstrap), <u>PHP</u>, SQL, Linux (SUSE)

Design and implementation of a strategic planning web application. Developed new data

visualisation and analysis sections in a RESTful service.

Transitioned the backend application to a modern, Linux-based architecture.

05.2017-08.2017 Siemens AG, Munich, – Software Development Working Student

Technologies: <u>Java</u> (Swing), MagicDraw, Thrift

Software development for model-based systems engineering. Collaborated with other

departments to expand functionality and improve user experience.

09.2015-07.2016 **LMU, Munich,** – Research Assistant

Technologies: <u>JavaScript</u> (D3.js, AngularJS, Node.js), SQL, HTML5, CSS (Bootstrap)

Data visualisation, web development and HCI research for the Department of Media

Informatics.

06.2014-09.2014 "The Table", Seoul, – Work & Travel in South Korea

2012-2016 **Mayer's Brauwerk, Oggersheim,** – Auxiliary

Education

Since 10.2017 **LMU Munich** – Master of Science – Grade so far: 1.4

Informatics with focus on machine learning, functional software development and

Human-Computer Interaction.

10.2016-03.2017 Lancaster University, UK – Bachelor thesis – Grade: 1.3

Technologies: <u>C#</u>, Unity, Linux (Mint), HTC Vive, Leap Motion

"Integrating Eye Gaze and Gestures into Virtual Reality"

10.2014-09.2017 **LMU Munich** – Bachelor of Science – Grade: 1.9

Media Informatics with applied subject Human-Computer Interaction.

08.2006-03.2014 Carl-Bosch-Gymnasium Ludwigshafen – High School – Grade: 2.0

Skills Languages

Programming C#, JavaScript, Python, Java, Haskell German Native speaker
Tools Git, Docker, Unity, Linux, Azure English Fluent

Expertise AR/VR, Machine Learning, IoT French Basic knowledge Interests Visualizations, Security, Research, UX Korean Basic knowledge

University Projects

02.2016-03.2016 **Data Visualization** – Lab Project

Technologies: <u>Java</u> (Processing)

In a practical course we developed a novel data visualisation application with real world

data on food and beverage trade.

01.2016-03.2016 <u>Unite & Conquer</u> – Advanced functional programming

Technologies: <u>Haskell</u> (Yesod), SQL, HTML5, CSS

We wrote a persistent online strategy game written with Haskell. I worked on the backend

game logic as well as the frontend interface with Yesod.

06.2018-08.2018 <u>Modern Radios</u> – Hardware interaction group project

Technologies: <u>Python</u>, <u>C++</u> (Arduino), Raspberry Pi, Arduino, Linux (Raspbian)

As a team of two we developed, prototyped and built a radio device with modern features

(NFC, E-Ink displays), referencing traditional radio designs.

06.2018-08.2018 Robocode Learner – Applied Reinforcement Learning

Technologies: <u>Java</u> (Swing), Teachingbox (RL-Framework)

Using Temporal Difference learning, we designed and implemented an AI which learns to

win against enemy robots in the coding game Robocode.

More on my portfolio

Publications

2017 <u>Gaze + Pinch interaction in virtual reality</u>

Authors: Pfeuffer, K., Mayer, B., Mardanbegi, D., Gellersen, H.

SUI '17 Proceedings of the 5th Symposium on Spatial User Interaction, Pages 99-108

2019 <u>EyeSeeThrough: Unifying Tool Selection and Application in Virtual Environments</u>

Authors: Diako Mardanbegi, Ken Pfeuffer, Alexander Perzl, Benedikt Mayer, Shahram

Jalaliniya, Hans Gellersen

The 26th IEEE Conference on Virtual Reality and 3D User Interfaces, 2019

Personal Interests

Volunteering Media Informatics student council – Spokesperson 2016-2018

Active in organisation, planning and the teaching committee

Astronomy exchange – Award winner 2012-2013

"The South African sky above Germany"

Music Piano – private lessons and in big bands

Viola – private lessons with success in state-wide competitions and as principal violist in

orchestras

Sports Swimming, mountain biking, ju-jutsu