Benedikt Mayer

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Informatics student interested in human-computer interaction, machine learning, functional programming, data visualization and mixed reality.

Work Experience

12.2019-05.2019 **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: 1.6

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 Eve 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 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: Python, C++ (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: Java (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, <u>Benedikt Mayer</u>, 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