MANUEL KUGLER

My past studies have taught me to develop cutting-edge technologies. Through my Master's degree in Human-Centered Computing, I could see how important it is to create technologies for people. In the future, I would like to support technologies of this kind, from the creation to the assessment of their consequences.

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SKILLS

- Human-Computer Interaction
- User Experience
- Artificial Intelligence
- Machine Learning
- Digital Communication
- Programming in Matlab, Java, C/C++ and Python
- Problem-Solving
- Critical Thinking
- Receptive & Reliable
- Active Listening

HOBBIES & INTERESTS

- Sports
- Hiking
- Reading
- Writing
- Creating and Listening to Music
- Hang-Out with Friends

LANGUAGES

German
English

EDUCATION

SEMESTER ABROAD

Örebro University (Sweden)
2023

- Scientific Work for my Master Thesis
- Teaching And Learning
- Visual Communication
- Public Relation and Applied Communication

HUMAN-CENTERED COMPUTING

University For Applied Sciences Upper Austria, Campus Hagenberg
2021 – 2023

- Technology Assessment
- Psychology and Physiology
- Interaction Design and Usability
- Data Preprocessing & Databased Modelling
- Augmented Reality & Information Visualisation
- Simulation in Human-Centered Systems
- Master's Thesis about Affective Computing

EMBEDDED SYSTEM DESIGN (CHANGED)

University For Applied Sciences Upper Austria, Campus Hagenberg
2020 – 2021

- Industrial Software Engineering & RTOS
- Project in the field of Artificial Intelligence

HARDWARE & SOFTWARE DESIGN

University For Applied Sciences Upper Austria, Campus Hagenberg
2017 – 2020

- Software Development in C/C++
- Digital Communication (IoT, Bluetooth, ...)
- Artificial Intelligence
- Project Management
- Thesis about Blockchain-Technology

TECHNICAL KNOWLEDGE

PYTHON

- Pandas
- NumPy
- Scikit-learn
- Sklearn
- Keras
- Matplotlib
- Seaborn
- Plotly
- IPyWidgets
- Flask
- Requests
- JSON
- Vosk
- MQTT (Paho, Mosquitto)
- NeuroKit2
- SciPy
- PyQt5

C/C++

- STL
- Boost
- Google Test
- Sockets
- Threads
- Synchronization (Mutex, CS, ...)
- Arduino, STM
- MQTT (Paho, Mosquitto)

JAVA

- JavaFX
- ImageJ

WEB DEVELOPMENT

- HTML5
- CSS3
- Java Script

OTHER

- Matlab & Simulink
- Unity Vuforia

More Information about me and my projects can be found on the following platforms. Feel free to (digitally) click on them to get in touch with me!

EXPERIENCE

RESEARCH & DEVELOPMENT

Sprecher Automation GmbH
Dec 2019 – Dec 2022

- Technical Research
- Development of Prototypes in C/C++ and Python
- Project Management
- Research Project about MQTT
- Research Project about Embedded Databases

ACADEMIC TUTOR FOR PROJECT MANAGEMENT

University For Applied Sciences Upper Austria, Campus Hagenberg
Oct 2020 – Jun 2021

- Project Planning
- Technical Project Management
- Unified Modelling Language (UML)

MY FAVOURITE PROJECTS

AFFECTIVE COMPUTING: STRESS-CLASSIFICATION

Affective Computing is an interdisciplinary field of research that spans the fields of computer science and psychology. This project was created in the course of my master thesis and was realized through Python and Machine Learning Methods.

MY HOMEPAGE

In my leisure time, I got interested into programming my own homepage. This project helped me to understand the basics of HTML5, CSS, and JavaScript.
My Homepage can be found at: **manuelkugler.eu**

AR PAPER TOSS

During my Master's studies, I got the opportunity to join an Augmented Reality course. There I developed an AR version of the famous mobile app Paper Toss. It was a mobile Application realized through Unity!

SMART USE OF A SOLAR SYSTEM

This project aimed to use a solar system more efficiently. The prototype was able to read out the data from the solar system in real time and compare it with the current electricity consumption to determine whether additional devices could be switched on. This was done using a Raspberry Pi and Python. Furthermore, a Vosk interface for a voice assistant was integrated.

TRASHADVISOR

Trashadvisor was a project to support users technologically in the separation of waste. For this, user studies, personas and scenarios were created. The results of the study and the user testing with the clickable prototype led to the final Trashadvisor model.