Philip Leindecker

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EDUCATION

ETH ZURICH
MSc. Physics
September 2019 - Present | Zurich, CH
- Semester Project: 'Fast Digital Notch Filter on a Microcontroller' in Prof. Tilman Esslinger's Quantum Optics Group at ETHZ
- Teaching Assistant - Analysis II

GPA: 5.6 / 6.0

TU VIENNA
BSc. Physics
Graduated June 2019 | Vienna, AT
- Bachelor thesis: 'Neural Networks in the field of Tribology'
- Completed additional courses from the BSc. Software Engineering Curriculum: Databases I & II, OOP, TIL, ...
- Teaching Assistant - Mathematics I

GPA: 1.7 / 1.0
(1.0 being the highest grade out of 1.0 - 5.0)

SKILLS

TECHNICAL SKILLS
Proficient with:
Python 3 • C++ • Java • Tensorflow/Keras • Git
Swift • SwiftUI • HTML5 • CSS3 • PHP • MySQL
JavaScript • Firebase • Jupyter • MacOS • Linux

SOFT SKILLS
Teaching and supervising students • Extensive Physics-Lab experience • Working and executing under research agendas

TECHNICAL PROJECTS

212 ° F | Sound Recognition App
April 2020 | Zurich, CH
- Developed an iOS-App using machine learning to detect certain trained sounds such as the boiling point of water during cooking.
- Used the Apple Turi Create framework for the custom trained ML model.
- Available on the official Apple App Store: 212° F.

EXASHARE | File-Sharing Website
September 2014 - July 2016 | Wels, AT
- Creator, founder and manager of a student file-sharing platform (exashare.at) containing more than 1000 user-generated school specific documents.
- Implemented in HTML, CSS3, PHP3, MySQL and JavaScript.

RESEARCH EXPERIENCE

ETH ZURICH | Research Assistant
Sep 2020 - Present | Zurich, CH
- Master student in Prof. Tilman Esslinger's Quantum Optics Group (IMPACT Lab).
- Development of a digital feedback-device acting as a highly adaptable and 'smart' control device for experimental parameters such as optical cavity lengths or laser powers in quantum optic labs.
- Integrating and enabling communication of the feedback-device with an internal control system responsible for the whole experimental set-up based on TCP/IP and SPI protocols.
- Working on new trap geometries for a Rubidium Bose-Einstein-Condensate in two crossed optical cavities for quantum simulations.

CERN | Summer Student 2019
July 2019 – August 2019 | Geneva, CH
- Selected from a pool of over 92 different nationalities with a 6% acceptance rate.
- Worked on enabling interactive jsroot graphics in Jupyter Lab as part of the ROOT Team.
- Attended a daily lecture and workshop programme for summer students and openlab students.

WORK EXPERIENCE

DEUTSCHE BANK AG | Research & Development Intern
July 2018 – August 2018 | Frankfurt, DE
- Built a Recurrent Neural Network based application to generate large amounts of new test data for an internal documents-checker and fraud-detection application.
- Implemented in Python 3 using TF.Keras.

DAIMLER AG | Research & Development Intern
July 2017 – August 2017 | Sindelfingen, DE
- Created and managed Daimler internal websites and apps for employees as part of the digitalization team in car development and research.
- Led workshops and tutorials for co-workers regarding new software tools and digitalization concepts.

TTTECH COMPUTERTECHNIK AG | Research & Development Intern
August 2016 | Vienna, AT
- Part of the software development team in the Automotive Division for self-driving cars.
- Visualized and analyzed internal code structures using Python 3 and graphviz for both ensuring code robustness and enhancing software architectural decisions.