



4 Courses

**Digital Signal Processing 1:  
Basic Concepts and  
Algorithms**

**Digital Signal Processing 2:  
Filtering**

**Digital Signal Processing 3:  
Analog vs Digital**

**Digital Signal Processing 4:  
Applications**

**EPFL**

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**Lukas Woodtli**

has successfully completed the online, non-credit Specialization

# Digital Signal Processing

In this Specialization, learners developed skills of Digital Signal Processing with a focus on audio processing and data transmission. They started from the basic concepts of discrete-time signals and proceeded to learn how to analyze data via the Fourier transform, how to manipulate data via digital filters and how to convert analog signals into digital format. They finally discovered how to implement real-time DSP algorithms on a general-purpose microcontroller. The solid theoretical bases provided by the four courses in this specialization were complemented by applied examples in Python, in the form of Jupyter Notebooks and many hands-on exercises.

Paolo Prandoni, lecturer  
School of Computer and  
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Sciences  
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